THE Macdonald JOURNAL

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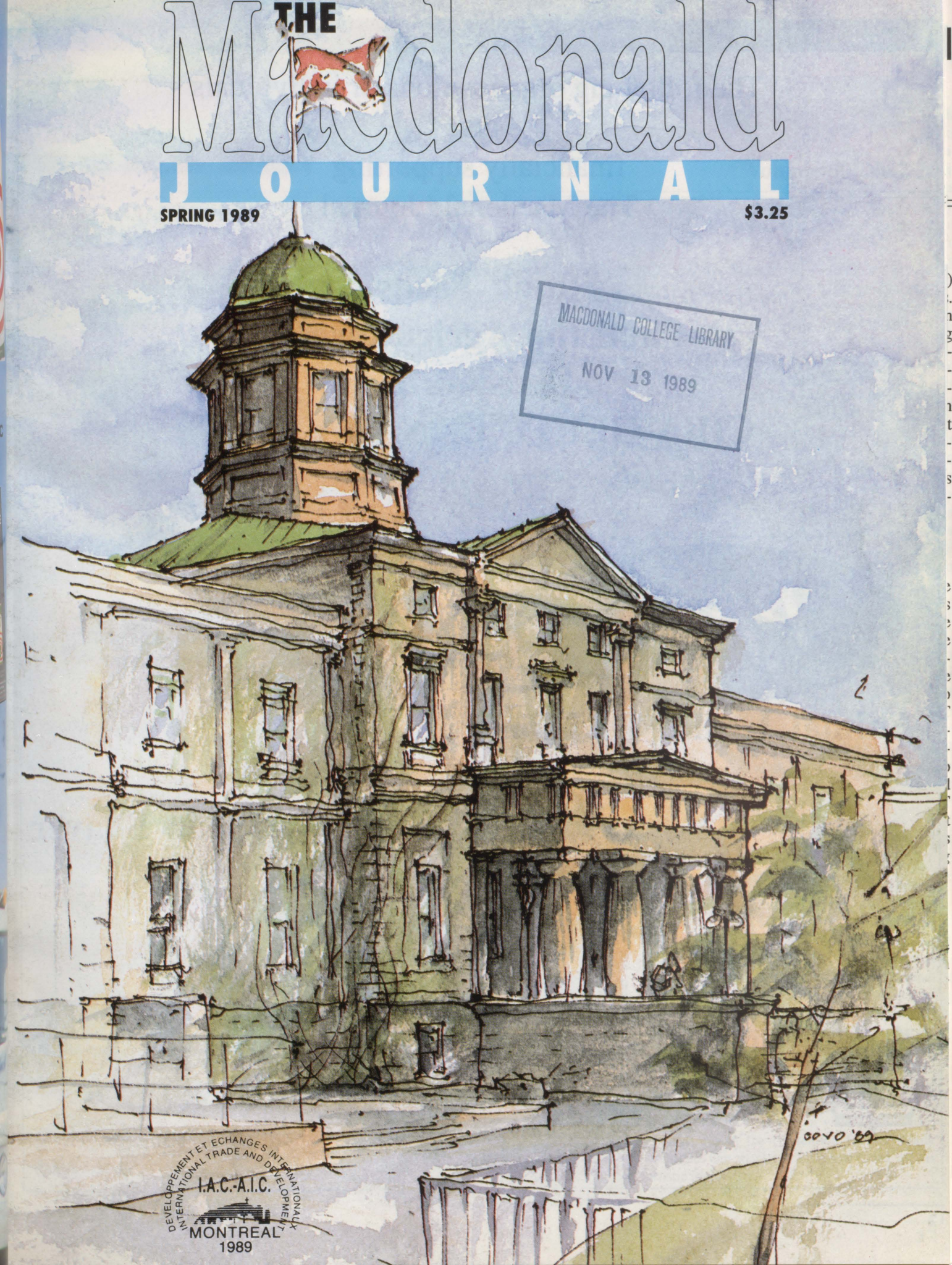

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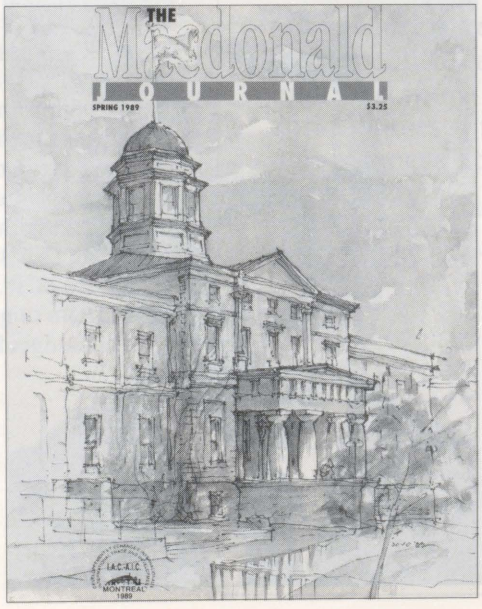


Cover

With the Faculty of Agriculture of McGill University hosting the up-coming Agricultural Institute of Canada (AIC) annual convention this July, and with the meetings and sessions being held on the Montreal campus, we thought it appropriate that the Journal cover depict a familiar McGill scene. This has been most effectively accomplished by Professor David Covo in his artistic interpretation of the Arts Building, a focal point of the campus. This building looks down across the lower campus to the stately Roddick Gates and Sherbrooke Street. McGill and Macdonald College welcome all AIC visitors to Montreal and to our university, and we look forward to your visit to Macdonald College during the convention for the family barbecue. Our thanks to Professor Covo for his artistic input.

Guest Editorial

Macdonald and the 1989 AIC Conference

by Professor Bruce Coulman
Chairman, Department of Plant Science

As I am writing this editorial, mid-April is approaching and the staff of the Plant Science Department are busily preparing exams and planning their spring planting. I am reflecting on the amount of time already spent on organizing the 1989 conference of the Agricultural Institute of Canada. I am also some what apprehensive about the enormous task ahead of us in the time left before July 9. How did we get ourselves into this ?? Since I am largely responsible for the conference being held in Montreal (although Norman Lawson should bear close to 50 per cent of the blame for this,) I will try to explain.

In the early 1980s Norman and I attended a number of AIC meetings and had become quite involved in the executive of the Canadian Society of Agronomy (CSA). We were impressed by the superb organization of several of these conferences and recognized the enormous amount of effort that had been made by the organizing committee. We wondered whether we should be holding a conference at Macdonald College in the near future, as we hadn't hosted one since 1967. We considered this, not only from a sense of duty, but also to show agrologists from across Canada that Macdonald College was alive and well.

In 1983 we discussed the matter briefly with Andy Terauds, then the general manager of AIC, and he informed us that the AIC by-laws would not permit Macdonald College to host a conference. Conferences had to be sponsored by local agrologists' organizations affiliated with AIC and such organizations no longer existed in Quebec. He mentioned that the by-laws were in the process of being changed so that scientific societies affiliated with AIC could sponsor conferences. This by-law change was approved in 1984.

We then wondered whether Macdonald had the facilities and the necessary number of staff to host a conference of 1,000-1,300 people. Andy Terauds visited the College in 1984 to evaluate our facilities. It was apparent that we were lacking space for large gatherings and that the absence of hotels in the immediate region would pose a major transportation problem. We discussed using the downtown McGill facilities as an alternative. We polled our academic staff on their interest in working to organize the conference and we were pleasantly surprised with the response that we received. The commitment was definitely there.

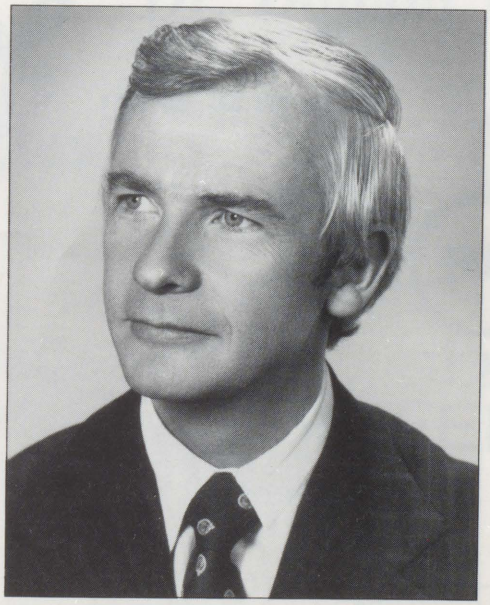
At the AIC conference in Winnipeg in 1984, we asked the Canadian Society of Agronomy, a scientific society affiliated with AIC, if they would like to sponsor a conference in Montreal in 1989, keeping in mind that the staff of Macdonald College would do most of the organization. The CSA agreed and an invitation was made to AIC, which was approved by National Council that same year. We have been busy ever since.

As detailed in the "Mac Connection" article in this issue, Macdonald College and the Agricultural Institute of Canada have had a long and close association. The 1989 conference will be the sixth in which Macdonald staff have been involved as hosts. Ralph Estey's description of the 1967 conference gives a clear indication of why conference organizers develop grey hair prematurely. Let us hope that this year's organizing committee will not be faced with similar eleventh hour changes.

The theme of the 1989 conference, "International Trade and Development" is a timely and appropriate topic. Canada is one of the world's major agricultural trading nations and is a major contributor to international development projects. A major concern of all Canadian agrologists is the possible erosion of Canada's position as a major exporter of agricultural produce, brought about by the present subsidy wars.

To the regular subscribers of the Macdonald Journal, this issue will familiarize you with the AIC and its annual conferences. For our guests at the conference, we hope that this copy of the Journal will inform you of the Macdonald College involvement with AIC and will pique your interest in our fine institution. We trust that the "Mac Spirit" of the organizing committee has provided you with an interesting and enjoyable conference and that your stay in Montreal will be a memorable one.

Welcome to McGill University



McGill University is anticipating with great pleasure hosting the annual convention of the Agricultural Institute of Canada which will be held next July on our downtown campus.

The Agricultural Institute of Canada - Macdonald College link is of long-standing and a highly valued one and has resulted in research and development of significant importance for Canadian agriculture.

We welcome all members of the Institute and their families and hope you enjoy your visit to our university and to Montreal.

David L. Johnston
Principal and Vice-Chancellor
McGill University

Macdonald College and International Development

by Dr. Eugene Donefer
Director, McGill International

The international dimension of the Faculty of Agriculture at Macdonald College goes right back to its origins at the beginning of the century. For most of this period the undergraduate and graduate bodies have had a strong international student component with many of our overseas graduates returning home and becoming leaders in education, research, business, and the political aspects of their countries. For this reason, when travelling throughout the world, it is always possible to meet Macdonald graduates in positions of prominance.

Many of the Macdonald staff and graduates have also excelled in international development careers with some examples being David Hopper, currently a World Bank Senior Vice-President, Hubert Zandstra, formerly a Director of the International Development Research Centre (IDRC), George Dion, who became a major agricultural adviser to the Canadian International Development Agency (CIDA) after his Macdonald Deanship, and Howard Steppler, who after "retirement" maintains an active involvement in several international agricultural research institutions.

Starting in the 1960s and paralleling the birth and expansion of Canadian government funding opportunities (through CIDA and IDRC) Macdonald College entered into a new phase of direct project participation. A major Caribbean region program on the use of sugarcane and its by-products for livestock feed had many participating staff members from the Departments of Animal Science and Agricultural Engineering. This collaboration culminated in CIDA contracting McGill (1976-81) to execute the Sugarcane Feeds Centre (SFC) in Trinidad, for which I served as Project Director. The project continues to make an important and innovative contribution to crop and livestock production systems in the Caribbean.

The last three years have seen a marked increase in CIDA and IDRC projects being directed by staff from the Faculty of Agriculture at Macdonald College. At present staff from almost all the departments and the School of Dietetics and Human Nutrition are involved in 12 projects located in Egypt, Zimbabwe, Tanzania, Ghana, China, the Philippines, St. Lucia, Guatemala, Peru, and Brazil. This involvement greatly enhances the international agricultural experience of staff which is also reflected in the enrichment of courses taught throughout the faculty. The Macdonald contribution to the solution of problems relating to international agriculture, food, and nutrition has reached new heights and is still expanding.

The Importance of International Trade and Development for Canadian Agriculture

by Professor Garth Coffin
Department of Agricultural Economics

(Editor's Note: The theme of the Annual Conference of the Agricultural Institute of Canada being held in Montreal in July 1989 is "International Trade and Development." This article by the chairman of the Program Sub-Committee for that Conference outlines its importance for Canadian agriculture.)

Introduction

The dual issues of trade and development are of vital importance to Canadian agriculture. Very few countries have an agricultural sector which is more highly dependent on world markets. With the value of agricultural exports corresponding to nearly half that of farm cash receipts, and the value of agriculture and food imports equivalent to one third that of domestic farm production, any change in the international market place is of great consequence to Canada. The most dramatic example of recent times is the trade war between the U.S. and the European Community which has brought down the price of grains and other products. But there are other examples, both positive and negative.

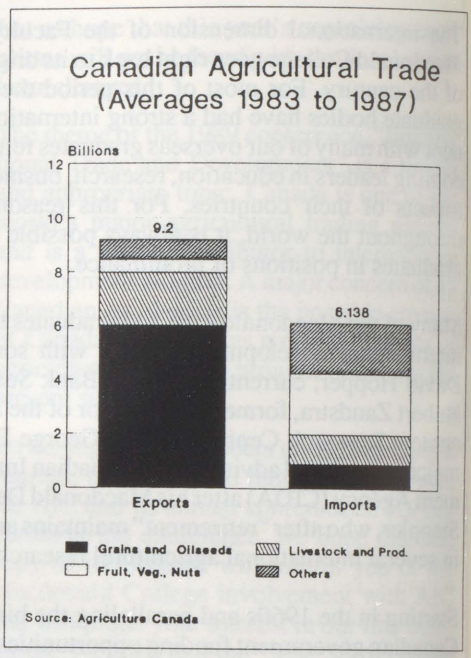
The problems and progress of developing countries are also important to Canadian agriculture in several ways. In the first place, Canadians care deeply about the plight of fellow human beings in poorer countries. Canada is one of the largest contributors of food aid and development assistance. Associated with both government and non government aid programs, Canadian agrologists are involved in helping to overcome food production and marketing problems in those countries. On the commercial side, developing countries are important agricultural trade partners. Increased prosperity through economic development can make them even better trading partners for Canadian agriculture.

Trade and development issues have both had a high profile in the economic news of the past few years. Problems of surplus production, depressed prices, and massive government intervention in developed countries have contributed to trade disputes and precipitated the international search for solutions through the current round of negotiations under the General Agreement on Tariffs and Trade (GATT). While developing countries have been affected by these problems, many have also had to grapple simultaneously with food shortages and massive debt which has impaired their prospects for continued growth. This article looks at the dependence of Canadian agriculture on international trade and development and the broad issues affecting those areas of economic activity.

Dependence on Trade

Canadian agriculture is highly integrated with international markets. For the past two decades the value of agricultural exports has grown along with that of domestic production, averaging between 40 and 50 per cent of farm cash receipts. The value of imported agricultural and food products has also grown at a corresponding pace, averaging between 29 and 33 per cent of farm cash receipts since 1971. As a point of comparison, both of these proportions are approximately twice as large as the corresponding measures for agriculture in the United States.

The continued growth in the value of exports at the same rhythm as that of production and imports suggests that Canadian agriculture has been maintaining its competitive position in world markets. Moreover, the difference between export and import values indicates that Canadian agriculture has continued to be an important source of this country's merchandize trade surplus. During 1983-87, agriculture contributed $3 billion per year to that surplus, more than a third of the total. The high degree of internationalization of Canadian agriculture is spread across most commodities (Figure 1). Although grains (50%), oilseeds (10%), and pork (7%) dominate exports, all major commodity groups except dairy and poultry products have exports or imports or both equal in value to at least 30 per cent of production. In other words, government programs aside, most Canadian farm products are priced on world markets. Apart from exports of grains and oilseeds,



most of our agricultural trade is with the U.S. Together with other developed countries, the U.S. absorbs half our agricultural exports and supplies three-quarters of our agricultural imports (Table 1). But when trade with the U.S. is removed, the value of two-way agricultural trade with other industrial countries is just about identical to that with developing countries. Moreover, in relative terms, Canada's agricultural trade (as well as its trade surplus) with developing countries has been growing much more rapidly than with other trading partners (Table 1). Clearly, the prosperity of Third World countries and their willingness to trade is an important factor for the future well-being of Canadian agriculture.

Progress and Prospects for Development

The results of economic development efforts have been mixed. Some countries have made good progress in economic growth, and others have not. For the past two decades, the developing countries in Asia have realized an annual growth rate ranging from 3.2 to 6.4 per cent in real Gross Domestic Product (GDP) per capita. (IMF, 1988)

Foremost among these, of course, are the newly industrialized countries of Taiwan (Province of China), Korea, and Hong Kong where real output has increased by more than 10 per cent annually in recent years. This may be compared to a growth rate of 3 to 4 per cent in Canada.

These newly industrialized economies have also become increasingly important participants in world trade. In 1986-87, for example, the three above-mentioned experienced a phenomenal annual growth rate in excess of 20 per cent in both exports and imports.

In contrast, other regions have not fared as well. Developing countries in Africa and the Middle East have suffered a decline in real output (GDP) per capita during the 1980s. By 1987, per capita real GDP in developing countries of Africa had declined by more than 10 percent from the beginning of the decade. The situation is even worse in the Middle East where per capita real GDP has decreased by more than 30 per cent since 1980. (IMF, 1988)

One of the major problems faced by many developing countries is an overwhelming debt burden. A result of heavy borrowing in the 1970s, followed by global recession and high interest rates in the 1980s, the total external debt of developing countries is now $1.3 trillion U.S. (IMF 1988). The cost of servicing that debt, at $160 billion (U.S.) per year, consumes about one-fifth of all the export earnings of developing countries. In some cases, debt-service charges are more than one-third of the value of exports.

Although commodity prices have recently improved slightly and some debt adjustment has occurred, the prospects for developing countries are uncertain. Much will depend on the co-operation and generosity of the industrial economies in trade and development assistance. Based on estimates of official development assistance as a percentage of Gross National Product (GNP), many developed countries have become less generous at sharing the wealth. Although total development assistance from OECD countries has nominally more than quadrupled in the past 20 years, as a percentage of gross national product (GNP) these assistance levels have fallen from .48 per cent of GNP in 1965 to the level of .36 per cent in 1985 (Table 2).

Canada plays an important role in development assistance. With a contribution of $2.9 billion Canada ranks with the top eight donor countries in the world. About 60 per cent of that assistance is delivered directly to recipient countries with the balance going through international agencies such as the World Bank.

Within the country-to-country assistance, that classified as agricultural amounted to $240 million in 1986-87 (CIDA Annual Report). Some of that aid is in the form of expert advice. Out of 4,761 Canadian experts providing technical assistance abroad in 1986-87, 14 per cent (656) were classified as agricultural.

Apparently, CIDA is placing even more emphasis on people in the development process. As described by Cathy-Carlson, one of the trends is that of "developing new partnerships - especially between Canadians, in all parts of our society, and those who can cause progress in their own Third World countries." (CIDA, Annual Report) Canadian agriculturists could provide a major contribution to such partnerships with counterparts in developing countries.

Mellor argues that because of the scarcity of capital in the third world, "it is time for developing countries to emphasize agriculture and employment-based growth strategies." (p.4) He suggests that such a strategy will require the help of developed countries in terms of technical assistance, "massive" use of food aid for building infrastructure and liberal trade policies that allow for imports of labour-intensive products from developing countries.

According to the "Agriculture and Development" discussion paper released last year by the Canadian International Development Agency (CIDA), it has designated the agricultural sector as a priority and is, through its programs in developing countries, pursuing the objectives of "self-reliance in food," "dynamic local participation," and "mutually beneficial economic relations." Canadian pursuit of trade liberalization through multilateral negotiations is also consistent with this strategy, particularly the objective of mutually beneficial economic relations.

Trade Environment and Negotiations

Over the past two years, Canadian trade negotiations have been preparing to deal with the issues of the multilateral trade negotiations under the GATT. The central role of agricultural trade, and especially domestic agricultural policy in the GATT negotiations is a historic first, signalling the depth and breadth of concern over these issues among the major trading partners.

The current state of surplus capacity, depressed prices and extensive subsidization and protection of agriculture is the outcome of a complex set of factors. Production capacity was increased in the 1970s on the basis of expectations of continued high prices. This period of expansion during which doubts were raised about the ability of the world to produce enough food was followed by a global economic recession in which demands fell, particularly among developing countries.

The growth in output, which had also been fostered by high target prices and production restraint in the U.S. (providing support for world prices), by fears of food security in countries dependent on imports, and by protective trade policies, now contributed to mounting stockpiles of basic commodities. By 1986, world wheat stocks had reached 160 million tonnes, equivalent to one-third of world production that year. The emergence of the European Community as a significant grain exporter during this period is a major factor in recent trade tensions.

As international markets weakened, income support programs in traditional exporting

countries such as Canada and the U.S. were triggered and costs of government programs began to climb. The effects of export subsidies were resisted by trade barriers in importing countries. The total value of agricultural subsidies financed by the combination of taxpayer and consumer transfers (through artificially high prices) world-wide has been estimated to have reached U.S. $300 billion by 1986-87. Total subsidies to the Canadian grains sector alone at that time were estimated at $3.6 billion. Most countries want to see these subsidies reduced.

While subsidy wars have attracted most of the attention, important structural changes in world trade have been occurring over the past few decades as well. For example, as noted by McCalla, the structure has changed from one of many exporters and few importers to one of few exporters and many importers. Accompanying this trend is a decline in the share of agricultural exports and an increase in the share of imports attributable to developing countries. (Fischer and Gunjal) These changes could be important for the future stability of world agricultural trade and appropriate development strategy for Canadian agriculture.

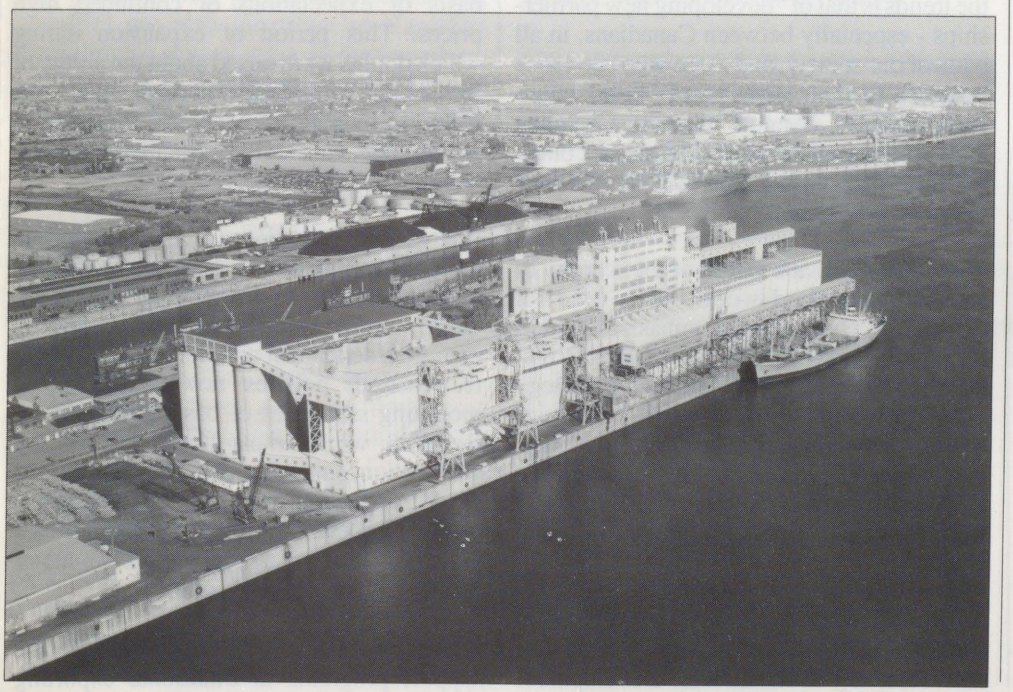
Trade liberalization, if it proceeds, could bring higher world prices and increased trade volume for most commodities. While the burden on taxpayers and government expenditures would decline through lower subsidies, complete elimination of subsidies and trade protection for agriculture would likely leave some farmers in developed countries worse off and others better off. This has left the Canadian farm sector somewhat divided on the virtues of free trade. Dairy and poultry producers who have enjoyed the stability afforded by supply management policies are understandably anxious to see such programs maintained. Grain and livestock producers who anticipate new export opportunities or less threat from subsidized imports are anxious to see the negotiations succeed. The future shape of Canadian agriculture may depend on the outcome.

Trade and Development Linkages

Developed and developing countries alike have a stake in the relationship between trade and development. For many developing countries, trade has been the engine of economic development, the means of earning foreign capital with which to build the essential infrastructure for a healthy economy. As these countries have developed, they have often become customers for agricultural imports. But they also depend upon the industralized countries to buy their exports.

In principle trade promotes the specialization of production according to the comparative advantage of each country as determined by resource endowments and final demand. Specialization increases the efficiency of resources, raising the total output attainable with a given technology. Population-dense and resource-short developing countries may specialize in the production and export of labour-intensive manufactured goods while resource-abundant and population-short countries like Canada may specialize in production and export of capital intensive output such as the products of modern agriculture.

In practice trade and domestic policies often prevent the full benefits of specialization from being realized. In particular, it is often the trade policies of industrial countries which prevent the full realization of the benefits of trade, especially in the developing countries. According to Hopper, for example, protectionist legislation and regulations in the industrial nations are estimated to have cost the developing nations foregone income equivalent to twice their receipts of official international assistance flow.



One of the ways which restrictive trade practices and the conflicts they create discourage exploitations of trade and development linkages is the uncertainty they create. According to Petit, developing countries may use uncertainties, such as those resulting from the U.S.-E.C. trade war, to promote a higher degree of self-sufficienty in food production within their own borders.

Realization of the gains from trade may also be hampered by imperfections and failure of the marketing system. The existence of risks, uncertainty, and market power may represent costs that cannot be ignored in the formula-

tion of trade policy and development strategy. The challenge to policy makers is to find the combination of trade and domestic policy on a global scale that will permit the exploitation of trade and development linkages to the mutual benefit of all parties.

Conclusion

The selection of international trade and development as the theme for the AIC Annual Conference in Montreal in 1989 recognizes both the major developments occurring in these fields of activity right now and their importance to the future of Canadian agriculture. The slate of participants headed by the Plenary Session speakers will provide Canadian agrologists a professional insight into the issues and prospects for resolution of trade and development problems that threaten the well-being of developed and developing countries alike.

In particular, Mrs. Margaret Catley-Carlson, President of CIDA, will discuss the "Challenges of Economic Development" and the role that Canada and Canadian agriculture may play in meeting those challenges. Dr. Alex McCalla, University of California (Davis), will discuss the "Emerging Patterns of World Agricultural Trade," including the forces behind the current GATT negotiations and where they are likely to lead. Dr. Michel Petit, Director of Agriculture and Rural Development at the World Bank, will examine the "Trade and Development Linkages" and what they might mean for future trade and development strategies. Anyone with an interest in Canadian agriculture will have an interest in what these internationally recognized experts have to say.

Table 1. Distribution of Canadian agricultural trade by type of economy.

	Average 1978-82	Average 1983-87	Change
	($billion)		(%)
EXPORTS			
Developed	3.7	4.4	19
Centrally Planned	2.3	2.5	19
Developing	1.4	1.9	36
Totals	7.4	8.8	19
IMPORTS			
Developed	3.8	4.8	26
Centrally Planned	0.15	0.13	-13
Developing	0.9	1.2	33
Totals	4.9	6.1	24
TRADE SURPLUS (DEFICIT)			
Developed	(0.1)	(0.4)	(300)
Centrally Planned	2.2	2.4	9
Developing	0.5	0.7	40
Totals	2.5	2.7	8

Source: Agriculture Canada, Canada's Trade in Agricultural Products, Ottawa, 1988.

Table 2. Official development assistance from selected countries.

	Share of GNP			U.S. $Millions
	(%)			
Country or Group	1965	1975	1985	1985
Canada	.19	.54	.48	1,638
France	.76	.62	.79	4,022
Netherlands	.36	.75	.90	1,123
United Kingdom	.47	.39	.33	1,490
Japan	.27	.23	.29	3,797
United States	.58	.27	.24	9,555
Total OECD countries	.48	.35	.36	
$U.S. (Billion)	6.5	13.9	29.5	29,518

Source: World Bank, World Development Report, 1986 Oxford University Press. (page 218)

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AIC: The Mac Connection

For the sixth time in the history of the Agricultural Institute of Canada McGill"s Faculty of Agriculture will be acting as host for the organization's annual convention. This special occasion offers an ideal opportunity to glance back at the history of the AIC and at Macdonald College's role in that history. Indeed, the initial impetus for an organization of professional agriculturists was originated by Macdonald College graduates - "the group of five" as Dr. Howard Steppler referred to them recently when he and Dr. Norman Lawson met with the editor of the Journal to talk about Macdonald, the AIC, and their close ties. Dr. Steppler is Emeritus Professor of the Department of Plant Science and a Fellow and Past President of the AIC and Dr. Lawson, also of Plant Science, is Chairman of the Organizing Committee for this year's convention.

Dr. Steppler pointed out that, to his surprise, he had found out that Canada was not the first country to have a professional organization for agriculturists. "There was a much older one in Argentina," he said.

In retrospect, Dr. Steppler says it is somewhat surprising that the organization in Canada developed when it did as agricultural education was really only beginning in this country. The oldest faculty was the Ontario Agricultural College which had been in existence for some 45 years; the others were much younger: around 10 years.

The fact that an organization had been suggested by graduates from a younger college did not, indeed, sit well with some of the men from older colleges who thought, for instance, that they were being left out of some of the organizational work. This difficulty was overcome in part, by the appointment of provincial organizing committees, the members of which enrolled new members in their own areas.

Another point that interests Dr. Steppler is that the organization developed as a group of professional agriculturists - it didn't develop as individual disciplines. "In the United States, for instance," Dr. Steppler explained, "a federation has evolved out of individual disciplines. We started out with agriculture as a holistic group and then divided into the more discipline oriented groups at a later date. I think this was a good approach. It means that there is better interaction between the various disciplines. Agriculture is not a single discipline - it is a multidiscipline integrated activity.

The five founders of the Canadian Society of Technical Agriculturists, l to r, Garnet LeLacheur, F. L. Drayton, M.B. Davis, F.E. Buck, and F.H. Grindley

"It was inevitable," Howard Steppler said, "that when a group of professional people reach a certain mass, they will want to form a society. They will want some kind of sounding board - some sort of meeting place."

Dr. Lawson also pointed out that there would be no doubt that World War I would have had a profound influence on the lives of the young professionals and that, with the end of the war, they would want a new start and be prepared to work hard towards achieving their goals.

The sounding board was the first post-war meeting of the Macdonald College Alumni Association; the meeting place was Macdonald College, and H.K.C.A. Rasmussen in his book "The History of the Agricultural Insitute of Canada 1920 - 1980" refers to Frank Buck, as a man as instrumental as any in bringing the new organization into being, and who gave this personal narrative account of how it came about.

"In the early part of 1919, an invitation was received by some of the members of the Experimental Farm staff (in Ottawa) to attend a reunion at Macdonald College at McGill University. Several members who had answered the call to service overseas in 1914 had returned to duty, and among them was Malcolm B. Davis, a colleague of mine at both Macdonald and the Experimental Farm. One day I invited him to lunch with me in my office and brought up the subject of going to the reunion. At the same time, I handed to him copies of two resolutions which I had previously drawn up, after considerable introspection and review of Canadian agriculture. The first of these resolutions related to the matter of the 'reclassification of the men and women engaged in professional agriculture' who were employed by the federal government. I happened to be the chairman of the committee charged with furthering this objective, and I wished to get support for it at the reunion. The other resolution dealt with the larger theme of forming this Dominion-wide organization, capable of taking in all men and women engaged in professional agriculture as well as those engaged in farming who could, by previous training, equally qualify. I handed copies of these resolutions to Davis, as drafted, and said, 'Malcolm, if you will move the or-

ganization resolution, I will second it; I will then move the other, and you can second it.' The plan worked, and at the reunion, as a result, five members, all to be located at Ottawa, were appointed as the Organizing Committee."

Those five men were: Malcolm B. Davis, Fred Grindley, Garnet Lelacheur, Frank Buck, and Frank Drayton. All were graduates of Macdonald College. Their task was not an easy one. Prospective members were scattered over the entire country, but between the meeting on Octover 10, 1919, and June 2, 1920, when the organizing convention opened, they worked hard and did their job well. Each was assigned duties such as obtaining constitutions and by-laws from other professional organizations, sending articles to the newspapers, contacting all agricultural alumni associations, contacting key personnel for moral and financial support, and establishing and maintaining an index of all agricultural graduates. No small task for five men with full-time jobs but, according to the AIC history, the first applications for membership were accepted at a meeting on January 16, 1920. They were from: Dr. C. Gordon Hewitt, D.E. Lothian, Dr. Alfred Savage, C.E. Petch, A.P. MacVannel, L.D. McClintock, L.C. Raymond, R.C. Treherne and C.W. Baxter. At that meeting a date was fixed for the first organizing convention which was held on June 2, 3, and 4, 1920, with 119 members attending out of a paid membership of 411. L.S. Klinck, the first Chairman of Agronomy at Macdonald College and then President of the University of British Columbia, had been elected by mail ballot as the first president. Other members of the first executive were: H. Barton, L. H. Newman, A.F. Barss, Jules Simard, G.E. Sanders, and J.A. Clark. The organization was called the Canadian Society of Technical Agriculturists (CSTA). This name changed to the Agricultural Institute of Canada (AIC) at the 1945 meeting held in Saskatchewan.

By September 1920, four branches had been organized: Macdonald College and Quebec City, both as locals, and Prince Edward Island and British Columbia as provincial branches.

The fact that from the start the CSTA was a national institution could well be a consequence of it having been thought of by Macdonald College graduates. "Macdonald from the beginning," Dr. Steppler said, "was drawing students from beyond its provincial boundaries much more than the other faculties and, hence, the students had a broader view, forced upon them as they rubbed shoulders with students from eastern Ontario, the Maritimes, and the U.K. There were always one or two from western Canada, and white and black students came from the Caribbean. They were not a provincial group."

Dr. Lawson pointed out that the "group of five" were from various areas: Garnet LeLacheur,BSA'13, was from New Brunswick, Frank Buck, BSA'11, was from Colchester, England, Frank Drayton, BSA '14, was from the Barbadoes, Malcolm Davis,BSA '12, was from Nova Scotia and Fred Grindley, BSA '11, was from Massawippi, Que.

Following the convention Fred Grindley was appointed as a paid general secretary of the CSTA. In his history H. Rasmussen says that "There is no doubt that Grindley was the key to the success of the society in its formative years. He, more than any other person, virtually ensured that the society could be steered through the troubled days ahead." With the birth of their publication "Scientific Agriculture," Fred Grindley also became its editor and he moved from Ottawa to Gardenvale, Que., right next door to Macdonald College, where the magazine was published. Fred Grindley moved back to Ottawa in 1922 and worked out of his home until 1924 when an office was provided by the federal department of agriculture. Fred Grindley died in February 1930, and as Dr. Steppler pointed out, the only building the AIC ever owned, which was acquired in 1949, was named Grindley Hall. This building was sold in 1956. Another honour is the Grindley Medal. Among those who have received this medal is Dr. J.E. Moxley, Emeritus Professor of Animal Science, in 1979.

Howard Steppler joined the AIC in the early 1940s in Winnipeg. "The attraction of the branch meetings that I went to in Winnipeg," Dr. Steppler recalled, "was the fact that people from various disciplines were present and we would get some very interesting arguments going. We had a lot of very high powered people in the Winnipeg group: Drs. Goulden, Craigie, Johnson, Neatby, Fred Greaney, P.J. Olson, T.J. Harrison. These men were not backward about coming forward with their opinions. Many of them had been members since the beginning so there was the corporate memory which could be very stimulating. One of our colleagues here at Macdonald, Wally Sackston, will recall that a group of us got impatient with the 'older' men and formed a group of our own called the Keystone Agricultural group. We prepared scripts which interpreted current wartime regulations for agriculture, particularly how they affected an individual farmer. The scripts were broadcast over a local station. The group was disbanded sometime before the war ended and after I had joined the army."

A graduate student here at Macdonald in the '50s, Norman Lawson enjoyed attending the AIC branch meetings on the campus. He also remembers going out to the convention in Vancouver in 1957. "I was attracted to it because of the agricultural and scientific information that these open-minded people from all across Canada were willing to exchange. I remember it vividly and thought it was marvelous." When he was in Prince George, B.C., he went through the various positions in the branch there and ended up being president. Returning to Macdonald in 1967, he again joined the local branch and was vice president when the Macdonald branch passed into history.
Dr. Lawson pointed out that though Quebec graduates can still be members at large, undergraduates and post-graduates do not have contact with AIC now. He also added that it was only recently that liaison was established here on campus with l'Ordre des agronomes.

"There has been a feeling for a long time," Dr. Steppler said, "that AIC is the voice of professional agriculture in Canada. In that respect we have prepared many briefs overs the years. I appeared before a Senate committee when I was president but long before that there were briefs on soil conservation and soil erosion from western Canada. In my opinion this is an important role for AIC. However, I imagine that it may present real problems for some

AIC: The Mac Connection

presidents who are themselves senior civil servants and in a difficult conflict of interest position - for example research funding or centres of excellence."

Norman Lawson concurred: "There are many who would like to see AIC as a lobbying organization and, indeed, we have presented briefs and have acted as the voice for professional agriculturists but not as yet with any great aggressivity or influx of money to try and influence people as we know lobbying to be carried out in the United States. We have two different kinds of people in AIC," Dr. Lawson continued, "those who generally go on for a higher scientific education and become members of the scientific societies, and those who are professional agrologists with the first degree who may be less interested in the advances in the scientific disciplines than in the overall progress of professional agriculture. I like to think of myself as being interested in both the scientific and the professional, but not everyone sees it that way."

"I think the first AIC Convention that I went to was here at Macdonald in 1946 as a graduate student fresh from the army," Dr. Steppler recalls. "I was appointed to the staff of Macdonald in 1949 and chaired the organizing committee for the convention held here in 1954 which was a joint undertaking between the Macdonald and the Montreal AIC branches. That was an interesting meeting. Sir William Ogg, Director of Rothamsted was one of the key speakers, and I remember Ken Neatby and George Ignatieff being here and singing duets in the dining room! There were about 640 people registered. I wrote to the City of Montreal asking if they would host a reception which they did at the chalet on Mount Royal. I also asked the Minister of Agriculture of Quebec if he would sponsor a reception to be held here at Macdonald. We had drinks and a bar and after the convention was over, I sent in the bills only to receive a frantic phone call from the deputy minister saying that he couldn't accept the bill. 'Send me another one saying afternoon tea!' It seems the Minister was a teatotaler.

"On a more serious note," Dr. Steppler added, "in 1954 we invited la Corporation des agronomes (now l'Ordre des agronomes) and several of their members came. As a result we started negotiations with them and these continued when I became president in 1964-65. I note that we are again attempting to get some kind of a relationship established between the two groups. Dr. Steppler also pointed out that Professor Emile Lods of Macdonald was a charter member of La Corporation des Agronomes du Quebec. This organization was granted a charter in 1942 and was the first such licensing and regulating body established in Canada. Professor Lods assumed a major share of the responsibility for the organization of that group. Professor Lods was also a Fellow of AIC.

Along with other Macdonald staff, it is now Dr. Lawson's turn as Chairman of the Organizing Committee to welcome some 1,000 delegates, spouses, and families to the 1989 convention which will be held in Montreal at the downtown campus of McGill University. "With an adequate amount of classrooms to house the eight scientific societies, and residence space right in the heart of downtown Montreal, we are delighted that the delegates will have an opportunity to see Canada's great metropolis," Norman Lawson said, "but it is also imperative that everyone visit Macdonald College as well. On Monday the young person's program will be held here on the campus and in the evening the adult program will be held here as well."

Dr. L. S. Klinck, l, receiving a certificate in recognition of the newly organized Klinck Lectureships from Dr. H.A. Steppler. Dr. Norman Borlaug gave the first lecture in 1966.

Some 1,000 delegates out of a membership of 5,500 are registered at present for the annual convention of AIC, the sixth to be hosted by Macdonald College. All because five young men back in 1919, tired of war and looking to the future, had a vision, one that was shared by their colleagues across the country. There are still challenges to be met, still a need for men and women with a vision that they are willing to share. We hope that Macdonald College will continue to share in that vision.

We cannot guarantee 100 per cent accuracy; however the list on page 13 is an indication of some Macdonald graduates and/or staff members who have been officials, Fellows, or award recipients of the Agricultural Institute of Canada.

Heading for an AIC convention planning meeting at Tadja Hall at Macdonald College are, l to r, Professor Norman Lawson, Chairman, Yvan Jacques, Executive Vice-President and General Manager of AIC, and Professor Bruce Coulman, Co-Chairman.

Founders
F. H. Grindley, BSA'11
G. LeLacheur, BSA'13'
F.E. Buck, BSA'11
M.B. Davis, BSA'12
F.L. Drayton, BSA'14

Presidents

1920-22	L.S. Klinck, Staff: 1905-14
1923-25	G.S.H. Barton, Staff: 1907-32; Dean: 1925-32
1936-37	W.H. Brittain, BSA'11; Staff: 1911-12; 1926-55; Dean 1934-55
1942-43	R. Newton, BSA'12
1953-54	G.R. Smith, PhD'39
1957-58	J.C. Woodward, BSA'30
1964-65	H.A. Steppler, MSc'48, PhD'55; Staff: 1949-84; Emeritus Professor: 1984 -
1978-79	R.J. Huggard, BSc'58

Secretaries

1950-53	J.C. Woodward, BSA'30
1953-56	A.W.S. Hunter, BSA'32, MSc'34, PhD'37
1956-59	D.G. Hamilton, BSc(Agr)'38
1984-87	E.N. Estabrooks, BSc(Agr)'64
1987-	C.B. Willis, BSc(Agr)'59

Treasurers

1979-80	G.S. Hart, BSc(Agr)'60
1980-82	D.E. Lousley, BSc(Agr)'68

General Secretaries/Managers

1920-30	F.H. Grindley, BSA'11
1938-51	C.G. O'Brien, BSA'34
1982-84	A.O. Terauds, BSc(Agr)'75
1985-88	A.O. Terauds, BSc(Agr)'75

Fellowship Awards

1922	L.S. Klinck, Staff: 1905-14
1923	J.W. Robertson, Principal: 1906-10
1926	W. Lochhead, Staff: 1906-25; Emeritus Professor: 1925-27
1936	J.H. Grisdale, BSA'23
1937	G.S.H. Barton, Dean: 1925-33
1938	W.H. Brittain, BSA'11, Staff: 1911-12, 1926-55, Dean: 1934-55
	R. Newton, BSA'12
1939	P.A. Boving, Staff 1910 - 16
1940	W.S. Blair, Staff: 1905-12
1944	R.P. Gorham, BSA'11
1945	M.B. Davis, BSA'12
1947	E.A. Lods, BSA'12, MSc(Agr)'25; Staff: 1916-54
1948	C.E. Boulden, BSA'18; Staff: 1918-19
	A. Kesall, BSA'18
1949	F.E. Buck, BSA'11
	W.A. C. DeLong, MSc(Agr)'24; Staff: 1936-62
	J.E. Lattimer, Staff: 1926 - 49
	L.C. Raymond, BSA'12; Staff: 1913-55
1950	F.L. Drayton, BSA'14
	C.K. Johns, MSc(Agr)'26
1951	W.W. Baird, BSA'12
	F.M. Clements, Staff: 1912-14
	C.G. O'Brien, BSA'34
1952	J.G.Coulson, Staff:1921-63, Emeritus Professor; 1963-74
	E.W. Crampton, Staff:1922-73
	G.E. O'Brien, BSA'13
	E.M. Taylor, BSA'18
1953	J.K. King, BSA'13, Staff: 1913-16
	G.P. McRostie, Staff: 1920-22
	J.G. Robertson, BSA'12
1955	R.H. Common, Staff: 1947-72, part time 1972-75, Emeritus Professor 1972-86
	J.C. Woodward, BSA'30
1956	J.N. Welsh, BSA'22
1957	H.G. Dion, Staff: 1954-72, Dean 1954-72, Emeritus Professor 1980 -
1959	J.F.D. Hockey, BSA'21
1960	K. Cox, MSc(Agr)'29
	W. Newton, BSA'14
1961	H.J. Atkinson, MSc(Agr)'26, PhD'34
1962	W.L. Gordon, BSA'22, MSc(Agr)'24
	S.C. Hudson, BSA'30
1963	R.J. Hilton, BSA'36, Staff: 1939-41
	F.O. Morrison, PhD'39, Staff: 1939-75
1966	J.M. Bell, MSc(Agr)'45
	H.A. Steppler, MSc(Agr)'48, PhD'55 Staff: 1949-84 Emeritus Professor 1984 -
	J.G. Stothart, BSA'32, MSc(Agr)'36
1968	P.C. Stobbe, MSc(Agr)'34
	F. Whiting, MSc(Agr)'43
1969	C.A. Eaves, BSA'32, MSc(Agr)'36
1970	A.W.S. Hunter,BSA'32, MSc(Agr)'34, PhD'37
	S.B. Williams, BSA'34. MSc(Agr)'36
1971	E.H. Lange, MSc(Agr)'38
1974	D.G. Hamilton, BSc(Agr)'38
1976	W.R. Childers, BSc(Agr)'38
	R.D. Gilbert, BSA'35
	W.H. Minshall, MSc(Agr)'38, PhD'41
1978	R.C. Parent, MSc(Agr)'24
	J.R. Wright, BSc(Agr)'40
1979	E.A. Grant, BSc(Agr)'43
	H.R. Klinck, MSc(Agr)'52,PhD'55; Staff: 1954-88, Emeritus Professor 1988 -
	H.B. Heeney, BSc(Agr)'49
	R.G. Anderson, MSc(Agr)'23
1980	J.A. Brown, BSc(Agr)'47
1981	R.P. Forshaw, MSc(Agr)'38; Research Associate: 1936-40
	E.A. Kerr, MSc(Agr)'41
	T. M. MacIntyre, BSc(Agr)'39, MSc(Agr)'41
1982	J.E. Moxley, BSc(Agr)'47, MSc(Agr)'52; Staff: 1947-1987; Emeritus Professor 1987-
1985	E.J. LeRoux, MSc(Agr)'52. PhD'54, DSc'73 Staff: 1962-65
	C.B. Willis, BSc(Agr)'59
1986	G.J. Brisson, MSc(Agr)'48
	F.G. Proudfoot, BSc(Agr)'43
	H.R. Scovil, BSc(Agr)'49
1988	H.F. MacRae, BSc(Agr)54, MSc(Agr)'56,PhD'60, DSc'87; Staff: 1961-72
	J.W.G. Nicholson, BSc(Agr)'51

Grindley Medal

1968	C.W. Owens, BSA'25
	F. Dimmock, BSA'23, MSc(Agr)'25
1979	J.E. Moxley, BSc(Agr)'47, MSc(Agr)'52; Staff: 1947-

1987; Emeritus Professor 1987 -

Hall of Fame

1982	S.B. Williams, BSA'34, MSc(Agr)'36

47th Convention
June 25 to 29, 1967
at Macdonald College

IT HOSTS:

donald College and Montreal
ches

VENTION COMMITTEE:

ral Chairman	R. H. Estey
hairman	T. G. Sevigny
ram	J. S. Bubar
ice	A. Husbands
otion	N. Henault
tration	F. O. Morrison
tainment	L. Maltais
city	D. W. MacDonald
sportation	H. Vokey
mmodation	J. F. G. Millette
es	Mrs. T. G. Sevigny

RESS CORRESPONDENCE TO:

er Riley, Secretary,
Convention Committee,
of Extension,
donald College, Que.

THE AIC CONVENTION OF '67

by Ralph H. Estey*, Emeritus Professor,
Department of Plant Science

There has never been a convention of the Agricultural Institute of Canada (AIC) quite like the one held at Macdonald College in 1967. The convention was sponsored by two "locals," the Macdonald College Branch and the Montreal Branch, and a unique feature was the presence of "Expo '67" during the Convention period.

Very early in the planning of the Local Arrangements Committees, they were told by the National Office of the AIC to arrange a program in which all members and their guests could be transported to the Expo site to hear the Centennial Lecture, sponsored by the AIC, and to participate in programs featuring various aspects of agriculture, especially those at the "Man the Provider Pavilion." A few days before the convention the organizing committee was informed that the assigned location on the Expo site was quite unsuitable for the Centennial Lecture and that it should be given at Macdonald College. So, even though contracts had been signed, programs printed, and various other arrangements agreed upon, a complete change of plans for meals, simultaneous translation, etc., had to be made at the eleventh hour.

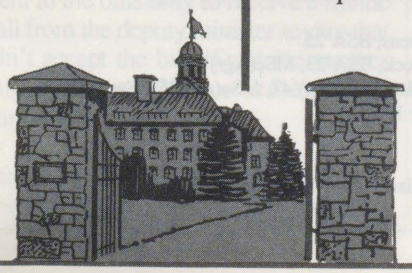
Because Monday had been designated as the day at Expo, we were forced to depart from what had been the traditional format of the AIC and have the official opening ceremonies and business meeting Sunday evening instead of the usual Monday morning. The customary plenary session of former conventions was eliminated from the program that year.

Following tradition, one evening was set aside for meetings, banquets, etc., of the affiliated Societies. As we knew that many people would want to go back to Expo, or for other reasons leave the Convention early on the last day, the Presidential Banquet, the Awards Ceremony, the Address by President, E.W. Stringham, and the entertainment featuring the dancing of the traditionally costumed "Les Feux Follets," with live orchestral accompaniment, had to be crowded into one evening.

Members of the Montreal Branch were very cooperative, especially Al Husbands, the late Dick Evans, and the late Trevor Sevigney. Al did a superb job as Chairman of the Finance Committee, Dick was a leader in Publicity and Press Relations, and Trevor was an active Co-Chairman of the Local Arrangements Committee, while his wife Margaret, chaired the Ladies Program Committee.

As the Convention was held at Macdonald College, most of the work and responsibilities were borne by members of the Macdonald College Branch. Walker Riley was Secretary for the Convention Committee; Frank Morrison was in charge of registration; Gerry Millette, accommodations; Don Macdonald, publicity; Peter Hamilton (with Evans of the Montreal Branch) press room; John Bubar coordinated the programs of the affiliated Societies; Bob Broughton assumed responsibility for signs, car pool, and the Sunday evening reception; Wally Sackston, who was President of the Macdonald Branch that year, received the VIPs and arranged for their accommodation; Herb MacRae was responsible for all details associated with the banquet, including closed circuit television between dining areas; Eric Norris was responsible for projectors, extension cords, lighting, etc.; John Ogilvie for transportation facilities, and Lew Lloyd, Vice-President of the AIC, was Master of Ceremonies at the Presidential Banquet, to mention only a few of the many who worked so well together to make the 1967 Convention so successful.

*Ralph Estey was Chairman of the '67 Convention Committee



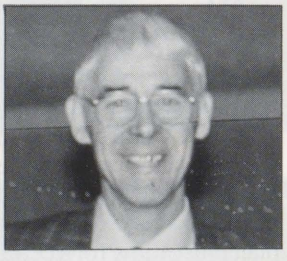
(Editor's note: The illustration for this article is the green and gold letterhead used for correspondence for the 1967 AIC Convention. Our thanks to Don MacDonald for sending us a sample.)

Notable Events

Soil Conservation Conference

Compiled by Hazel M. Clarke
Photos by Hazel M. Clarke & Hélène Gadoury

Last September the Table de concertation en conservation des sols sponsored a most informative and well-attended conference on soil conservation which was held at Macdonald College. Participants in the Table de concertation included Agriculture Canada, Ministère de l'Agriculture, des Pêcheries et de l'Alimentation (MAPAQ), Université Laval, l'Union des producteurs agricoles, l'Ordre des agronomes du Québec, and Macdonald College. The organizers attracted a distinguished list of speakers from Québec, Ontario, the United States, and Sweden and during the two-day event some 12 papers were presented to an audience of between 350 to 400 farmers, agronomes, and government officials. A tour of the soil conservation research plots at Macdonald College was also on the agenda, as were social occasions and a panel discussion which brought the conference to a close. In his welcome Dean Roger Buckland said that "the protection of our environment is one of the main challenges that faces us as we come to the end of this century... Farmers, consumers, scientists must be willing to examine the ways we have done things with a more critical eye, and the proposed alternatives with a more open mind... we must sharpen our definition and understanding of sustainable methods of producing top quality food. In photo captions and below we look briefly at some of the topics discussed:



Dr. Inge Hakansson from the Swedish University of Agricultural Sciences, spoke on soil compaction. He pointed out that machinery induced soil compaction considerably influences soil properties and crop yields. With low axle loads, compaction mainly hits the topsoil, but with high loads compaction may also affect deep subsoil layers. With increasing depth compaction gets increasingly persistent, and in deep subsoil layers it may be permanent.

He pointed out that the loaded wheel is our most frequently used "tillage tool", treating our fields several times each year. Resulting compaction affects all physical, chemical, and biological soil properties and processes, like water infiltration and drainage, aeration, root development, and seedbed quality. It may increase water run off, soil erosion and leaching of plant nutrients. Not all effects of compaction are negative. After loosening the topsoil by ploughing, a moderate recompaction increases crop yield. The optimal recompaction depends on several soil, crop, and climatic factors. Traffic at other times of the year negatively affects soils and crops.

Among factors determining the amount of compaction, the following were mentioned: soil water content, number of wheelings, axle load, wheel characteristics, and ground pressure, the latter being largely determined by the tire inflation pressure. The ground pressure has its greatest influence near the soil surface and the axle load in the subsoil. Freezing, drying, biological activity and tillage contribute to alleviating soil compaction. According to Swedish field experiments, plough layer compaction may be alleviated in one year in soils with low clay content only. In clay soils it persists for up to five years in spite of annual ploughing.

Quebec is participating in a series of experiments with traffic with vehicles having a high axle load. Results indicate that crop response to subsoil compaction persists for decades. Repeated traffic is likely to cause cumulative effects. Therefore, in order not to jeopardize the productivity of our soils for future generations, the axle load on machines should be restricted. In Sweden a maximum axle load of six tonnes is recommended. Since soils and climate are similar in Quebec, Dr. Hakansson suggests a similar load limit would be recommendable.

Professors G.S.V. Raghavan and Guy Mehuys, as well as other Macdonald professors, students, and technicians hosted a tour of the Macdonald College soil conservation research plots. Current research includes: 1) compaction by vehicles with heavy axle loads; 2) water induced soil erosion; 3) topsoil organic matter content; 4) maximum yield in corn production; 5) minimum/zero tillage, and 6) corn-legume intercropping. We have already indicated some of the problems with soil compaction in the review of Dr. Hakansson's talk. The study on water induced soil erosion aims to demonstrate the effect of runoff from spring snowmelts, summer weather patterns, and particularly tillage and cropping systems on soil degradation. Related to this is the research on topsoil organic matter content which can be altered by erosion. Specific to this study is the effect of topsoil loss on soil fertility.

A study that incorporates both soil degradation and conservation aspects of intensive crop production is the research into maximum yield in corn production. The aim is to attain yields which are much greater than average by increasing plant population density and the amounts of required input. While the potential to exhaust the soil by such means is high, there is also the possibility of returning increased amounts of organic residues to the soil.

The successful implementation of minimum/zero tillage, which entails the seeding of a crop into the previous year's residue with little or no tillage interventions, would lead to much higher yields per unit of energy input while maintaining good soil structure.

Since many of the problems pertaining to soil degradation stem from monocultural production of commercial crops, the use of corn-legume intercropping allows for the continuous production of corn while providing a companion crop that potentially serves as a nitrogen provider, and a cover crop for minimizing erosion. If yields can be maintained under this system, then there can be large reversals in soil erosion and enhancement of soil structure and fertility.

Results from these studies can give us precise indications of the type and extent of soil degradation that can result from a specific cultural practice or production system as well as indicating the benefits that can accrue

from the selection of an appropriate soil conservation system of production.

Ward B. Voorhees, who is with the North Central Soil Conservation Centre in Morris, Minnesota, spoke on controlling subsoil compaction. He discussed the current use of large machinery, particularly in northern climates where covering a large area in a short space of time has become important in a short growing season. Some transport wagons carry loads in excess of 33 tonnes (1,200 bushels) and some tractors have a gross weight of 50 tons. If subsoil compaction cannot be avoided, then attention must be focused on ways to minimize and alleviate it.

Two important factors to consider are soil water content and number of passes of a machine. A relatively dry soil has a much greater capacity to resist compaction. The initial pass of a wheel causes the most damage. Thus, it is important to think about when and where the wheel traffic is going to be applied.

One common result of subsoil compaction is slower internal drainage of the soil which can cause aeration problems and reduced nitrogen uptake by corn. It may be necessary to change the nitrogen management to make more of the nitrogen available for plant uptake under compacted conditions. In some soils, other plant nutrients may be more important.

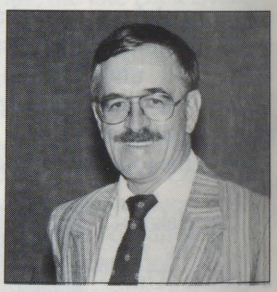
A conscious effort to control where and how various field operations are performed may be a feasible option for controlling subsoil compaction, especially in row crops.

The objectives of surface drainage said Remi Asselin from MAPAQ are 1) to ensure uniform distribution of precipitation and to favour its infiltration, 2) to carry away water that cannot infiltrate, and 3) to create as few obstacles as possible to machinery movements and cultivation operations. Surface work must dispose of runoff but not encourage it, especially in dry periods. He said that on very flat sites, with slopes under 0.15 per cent, shaping of ridged beds is recommended since it minimizes shifting of arable soil and ensures uniform infiltration of precipitation and removal of surplus water. The minimum width is 60m taking to account the requirements of farm machinery. The side slope can be as low as 0.15 per cent but should never exceed 1 per cent. On sites with slopes greater than 0.5 per cent, levelling is recommended to even the surface and fill in hollows where water tends to collect. When the slope of the site is long and even, levelling will be combined with catch drains to shorten the length of the slope. Spacing of catch drains depends on several factors including precipitation, crop type and site slope. Catch drains will also be combined with grassed channels to carry away runoff. Levelling is a long-term operation and the work must be repeated over several years. Most producers will have a drainage professional help with plans for this type of work.

Dr. Charles S. Baldwin, Head of the Soils Section at the Ridgetown College of Agricultural Technology, shared "The Ontario Experience" with the audience. He discussed Ontario's agricultural history and the changes that have occurred until today when production of row crops occupies approximately 50 per cent of the arable land, with corn and soybeans representing the major crops. Crop prices and ideal weather conditions in the 50s and 60s lulled people into a sense of complacency about the importance of soil resources. He said that Ontario today is at a high point in interest and concern about soil and water conservation. Soil conservation problems are of major concern and are alarmingly on the increase. "Can we afford to use soil and water conservation practices on the farm?" Dr. Baldwin said, "I believe that we cannot afford not to use them. If you think soil conservation is expensive — try degradation!"

Jacques Petit of the "Movement pour l'agriculture biologique" and Professor Stuart Hill, Ecological Agriculture Projects at Macdonald prepared "Ecological Agriculture: a global approach" which Mr. Petit presented. He discussed methods already being used by organic farmers and said that

many have already experienced the benefits of taking a more supportive approach to the soil. By avoiding toxic chemicals and highly soluble fertilizers and by carefully recycling organic wastes (manures, crop residues, green manures, and compost) to the soil and by protecting the soil with companion, nurse, and cover crop, many have noticed an increase in beneficial soil animals such as earthworms, etc. Fundamental research is needed for appropriate agro-ecosystem designs and systems of management that will enable the soil to meet the needs of all members of the present population without detracting from its ability to meet the needs of future generations.



A farm producer and agricultural engineer, Gilbert Sylvestre spoke on the need for a farm management plan to be used as a conservation tool for countering unsound practices relating to the use of soils. The plan's objective is to set out measures that will stabilize the soil structure, halt erosion, minimize compaction, and build a soil profile that is water and air permeable. The plan must allow for a certain amount of flexibility in dealing with such constraints as financial resources, produce marketing and demand and should also serve as a means of optimizing capital improvements, cultivation operations, rotations, and so on.

Daniel Pelletier, a cash crop farmer in the Ste-Hyacinthe area, spoke about the HERSOL club which he and other producers in

From Morocco to France Via Macdonald

Dr. Anne Weil, who presented a paper on minimum tillage which was also co-authored by Dr. Ted McKyes and Dr. Alan Watson, is shown here on the tour of the test sites. She pointed out that although minimum cultivation is used in the United States and western Canada, it is not a common practice in Quebec. Studies here in 1982 on both clayey and silty-sandy soils showed that the best yields were obtained when tillage operations were limited or discontinued, providing chemical fertilizers were used. Discontinuation of tillage causes an increase in soil density and water content and a slight accumulation of P and K in the top layer of clayey soil. Use of manure improved soil physical properties, particularly with no cultivation, but reduced the quantity of N available to plants. The major factors limiting yields from clayey soils were corn density, soil nitrate content, soil density, and soil water content. In silty-sandy soil corn density was the only limiting factor.

Jean Duval, Masters student, on the soil compaction site, points out soil profile differences subjected to heavy axle loading.

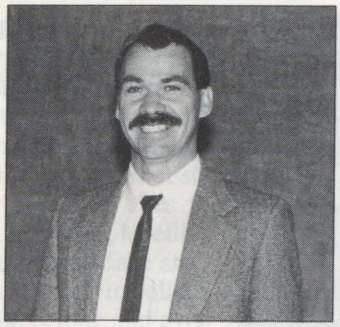
Ward Voorhees, centre, from Minnesota, in conversation with Sam Gameda, l, and Vijaya Raghavan of Agricultural Engineering.

Some of the principal organizers of the conference, l to r, Yves Arsenault, Agriculture Canada, Dr. Denis Desilets, Associate Dean, Research, Laval, Roberge Michaud, MAPAQ, Dr. Marc Laverdiere, Laval, Pierre Gaudet, Vice-President, U.P.A., Flore Fournier, Macdonald College, Dr. Marton Tabi, MAPAQ, Johanne Laplante, Ordre des agronomes, and Yves Frechette, U.P.A.

Professor Stuart Hill, l, moderator Mme Angèle St-Yves, Environment Ministry, and Charles Baldwin from Ridgetown Agricultural College.

Professor Angus MacKenzie describes his research in maximum yield studies with corn.

the area formed early in 1988. Members meet on a regular basis to discuss and share experiences on such subjects as: seedbed preparation, spring and fall cultivation techniques, possible improvement in farm machinery. They learn about new cultivation methods and, with proper technical support, test them in their fields. They have had a number of demonstration days; intercropping in wheat, corn, or soya, introduction of such crops as canola and new techniques such as strip or ridge cropping, the use of machinery such as the chisel plough, the disk plough and, ridger. HERSOL have also organized field trips to other areas.



Denis Côté, MAPAQ, presented the paper on organic amendments prepared by him and Professor Angus Mackenzie, Renewable Resources. He said that new developments in the area of rotation, companion and cover crops, green manure, seedbed preparation, and spreading of liquid and solid manure are the most promising avenues to explore for those wishing to improve their management of organic amendments and maintain a positive humus balance on their farms. Advances in our knowledge of agronomics stem from scientific research, and research in the area of amendments is highly active in Quebec. Nonetheless, because of the great diversity of soils and cultivation systems, observation and experimentation by farmers in their own fields are essential tools for hastening the acquisition and dissemination of knowledge related to both soil and water conservation.

A paper on windbreaks by Luc Desbiens, ITA, La Pocatière, Camille Desmarais, and André Vezina of MAPAQ and Katrine Strewart of Plant Science was presented By Luc Desbiens, who pointed out that the purpose of row plantations is to protect soils, crops, buildings, animals, and people from the adverse effects of winds. Windbreaks may be used to reduce wind erosion: they reduce the speed of the wind and therefore its erosion capability and they also contribute to higher soil water content levels by cutting evaporation losses. By protecting crops, they help to improve yields: protection from wind-caused mechanical damage, improved use of water by the plants, and a rise in daytime temperatures in protected areas: thus early maturing of crops. Windbreaks can also lessen the cost of heating greenhouses and other farm buildings, and attenuate the effects of cold and sun on animals. The potential for agricultural use of windbreaks in Quebec is considerable. Seedlings may be obtained from the Department of Energy and Resources (MER) and financial and technical assistance may be obtained from MER and MAPAQ.

In the photos Luc Desbiens is giving a tree planting demonstration on the college farm with the help of Farm Director Wendell Joyce and Joel Boutin who may be seen behind the tractor.

From Morocco to France Via Macdonald

An international table in the Stewart Hall Dining Room: Ellen Nestle, U.S., Joy MacAulay, Lorraine Marceau, and Barrie Adams, Canada, Abdul Khattat, Iraq, Mehdi Abdelwahab, Morocco, Anas Khalif, Jordan, and Tom Sylvester, Canada.

When Mehdi Abdelwahab and his wife Joy MacAulay wrote to give us a change of address from Ottawa to Montpellier, France, they also sent along some news and a warm welcome to Mac grads and staff who might be visiting in their area. Knowing that the May issue would have international overtones because of the Agricultural Institute of Canada's annual convention theme "International Trade and Development," I asked Mehdi and Joy to tell us more about their days at Macdonald, their careers, and their present posting. They both have fond memories of Macdonald and made many friends while here. I think you will enjoy their thoughts and reflections, and reading about a career in international agriculture. We'll let Mehdi pick up the story...(The editor)

I was born in Tetouan, Morocco in 1948. As my father had studied English and was also fluent in Spanish, he made many European and American friends, and I grew up with western cultures and customs. I also learned English and Spanish as a child and attended the American School of Tangier so I could obtain a North American education. I was accepted at the American University of Beirut (AUB) in Lebanon under a USAID scholarship. I had dreamed of studying Mining Engineering, but the only scholarships available were for either a BSc in Agriculture or a BA in Education. Thus the beginning of the orientation of my career. After an incomplete year at AUB studying Agriculture, I returned to Morocco and began working with the U.S. Information Service, Voice of America Radio Staion in Tangier, as a radio technician.

Why Macdonald

In 1969 I learned that the Canadian International Development Agency (CIDA) was awarding scholarships to Moroccan students to study at Canadian universities. It was suggested that I apply to the Faculty of Agriculture of McGill University. I had heard of McGill while studying in Beirut, and its reputation was equivalent to that of Harvard and Oxford. I thought I would never be accepted, but I got the scholarship and was accepted at Mac.

I arrived in Canada in September 1969, landing at Dorval and then flying to Ottawa to meet representatives of CIDA. The next day I took the train back to Montreal. During the trip, I talked with the conductor and told him I was going to Montreal to attended Macdonald College. He replied that Macdonald was not at McGill in Montreal. I was sure he was mistaken, but when the train stopped at the Ste. Anne de Bellevue station, he pointed out the Main Building tower and said, "That is Macdonald College!" I arrived at Brittain Hall and was given Room 290 by Miss E. MacKenzie, the Housekeeper. I was very proud of this room as it was in the new wing, and my neighbours, such as Ron Davidson and Andy Hallam, were in the class of 1971.

The next day was a Friday and I spent it registering for my first year (PABSI). Two events stand out in my memory. The first was spending an hour trying to convince a college employee that I could not possibly pay her $750 that day for room and board for the year since I was getting only $165 from CIDA per month which was coming from Ottawa via her office. She then agreed that she would collect $150 per month for the next five months, firmly stating that $15 per month pocket money was more than enough for a young man who was here to do some serious studying. You can imagine how tight my money situation was for the next five months.

My second recollection was meeting Dr. Jean David in front of the library in the Main Building at about 4:25. He asked if all my classes were in order, and I said "yes" I was all ready to attend my first class at 8:30 on Monday morning. He firmly responded, "No, Mr. Abdelwahab, you have a Chemistry class in exactly five minutes, and I strongly suggest you get yourself to it fast." I hastened to my first class with Professor Henneberry.

The following spring I decided to get some hands-on farming experience and asked Dr. MacRae, then Chairman of the Animal Science Department, and Rudi Dallenbach, then Farm Director, if I could work at the college farm on a voluntary basis during the summer months.

Over the summer months of 1970 I learned that one should never volunteer for anything with Rudi, as he works you like he works the farm machinery: from 6 a.m. to 6p.m. non stop. During that summer, the three of us — Tom Work, Bob Logan, and myself, — picked more rocks from the corn fields than had ever been picked before, including old clay drainage tiles that had been ploughed up. We cleared the bush and removed boulders from the new northeastern field next to the Trans Canada overpass. We cleaned the barns, painted the railings, and brought in the hay. It was hard work but a lot of fun and certainly an experience for me where I got to know Jim Houston, Gordie Beaulieu, Marc Bouleau, and others. In fact the experience was so worthwhile, I worked on the farm again the next summer!

In my second year I was one of the unfortunate students living in the apartments at 34 Maple Avenue when they were destroyed by fire. I had been sharing an apartment with Abdelrazzak Khattat (PhD

Attending a barbecue for graduates in the Ottawa area in June 1987, Mehdi catches up on Mac news with Dean Buckland, while Joy signs in with Linda Leroux and Greg Weil, Development Officer for Macdonald.

'81), Entomology, and we both lost many personal belongings. I remember people in the area provided us with clothes, blankets, and even textbooks, and the college allowed us to stay for free in Brittain Hall for the next two months.

My friend Ben Boumejjane, BSc(Agr)'75, and I were sent by CIDA in the summer of '73 to work on the D.E.R.R.O. project in northern Morocco as agronomes-in-training. We spent the months travelling the hills and working with the small farmers in the region and learned a great deal about practical extension methods.

I graduated from Mac with my BSc(Agr) in '74 and immediately returned to Morocco to work for the Ministry of Agriculture. Before I left the college, the Extension Department Director Gordon Bachman had indicated that a research grant was available and Brian Kennedy in Animal Science had agreed to supplement the grant, and I returned that fall to become the first graduate student in the Extension-Animal Science option.
I worked in Extension for the next two years assisting Gordon Bachman with his courses, with displays for such functions as the Salon and, of course, attended the fairs. I then spent most of the next two years in Animal Science where I carried out my field research on dairy-beef production for my MSc, which I obtained in 1979.

During the 1974-78 period I was also involved in international activities at the college and in the Montreal region. I attended the International Course on Rural Extension at the International Agricultural Centre in Wageningen, The Netherlands. I represented Macdonald twice at the International Students Association meetings at the University of British Columbia and at the University of Wisconsin.

Consulting Career

I left the campus in December 1978 and went to work with Peter Appleton at Agrodev Canada Inc in the nearby community of Beaconsfield. We were initially a small three-man operation, but over the years Agrodev grew, and I was involved in a variety of projects and travelled to many countries, including Ethiopia (with Dr. Gerald Millette and where we almost got shot), Malaysia, Morocco, Nigeria, Cote d'Ivoire, Mali, Niger, Philippines, Sri Lanka, Trinidad, Bolivia, Mozambique, Angola, Botswana, Zambia, Zimbabwe, and all of the Arabian Gulf countries. While in Beaconsfield and after we moved to Ottawa in 1982 I maintained close contact with Macdonald. Whenever possible, I used to call on Macdonald graduates and staff for short-term consultancies and expertise. I was always confident that Macdonald College had some of the best expertise in the field of agriculture.

While working as a consultant at Agrodev two projects stand out in my mind. The first was a five-week mission to the Potosi region of Bolivia in the summer of 1984. We were a five-man multidisciplinary team from Canada: an economist, an irrigation engineer, a horticulturist, a pasture specialist (Guido Delgadillo) and a livestock person (myself). Our mission was to evaluate the region and design small projects for an integrated rural development program. The team's biggest challenge was adapting to the local mode of transport (mule), the accommodations, and the local customs. I recall that during a 10-day period travelling through a number of villages we must each have had between $2,000 to $3,000 in our pockets, yet we could find no hotels. We ended up sleeping in the barn (with the donkey and the chickens) next to the house of an old woman who generously offered this shelter from the wet and cold climate at 3,700 metres altitude. This was an experience for all of us, for we realized that the dollar does not mean much in certain corners of the world. However, the contact with the farmers and our discussions with them were extremely positive.

The second was a project in the Sultanate of Oman, on which I worked between 1984 and 1987 with two other people from the Macdonald community, Walid Khayrallah (PhD)'78, Agronomy, and Bob Harper, a former assistant professor in Animal Science. This was an extensive project involving the monitoring of crop and livestock research programs on a national level. There were many components, and I got to know a number of international experts from around the world, in fields as diverse as date palm research, coconut and banana production, viral epidemiology, soil fertility, citrus nurs-

ery, and research on micro-mineral deficiency in small ruminants. The project gave me a broader experience in international agriculture, and the exposure to the different fields of agriculture allowed for a better understanding of the needs of the developing Third World countries.

Present Job

My present position is that of Assistant Director with the International Network for the Improvement of Banana and Plantain (INIBAP). This organization, which has its headquarters in Montpellier, France, was created in November 1984 by a group of donor countries, including Canada, Belgium, France, Australia, and the United States. These donors were interested in supporting research programs with the aim of improving the banada and plantain crops in Third World countries, particularly those countries where these crops are the main source of carbohydrate in the daily diet. In the world today over 100 million people consume these crops as their main staple food. Of the total world production of over 65 million metric tons of bananas and plantain, only about 3 million tons end up on supermarket shelves; the rest is consumed directly by the small farmer-producer.

My responsibilities include overseeing the day-to-day operation of the head office, and monitoring the administration of the regional offices in Latin America/Caribbean, West Africa, East Africa, and soon South-East Asia. I also maintain contact with Canada - the International Development Research Centre (IDRC) - and other donor agencies and provide assistance to the Director in the preparation of contract documents, financial matters, and representation. As the organization is still in its early development, my job activities are different from one day to the next, so there is always a new challenge.

Thoughts for the Future

Although world travel and living overseas are interesting, worth-while experiences, of all the places I have travelled and lived, there is no place like Canada. One must see the problems and the different standards of living in other parts of the world to really appreciate how good life is at home. However, travelling is in my blood, and I will always be interested in international work. For my wife Joy and me, Macdonald College has always been our real home (we lived there for nine years). Who knows, someday we may live in Ste. Anne de Bellevue again! For the next two or three years we will be living in Montpellier in the south of France and will always welcome the visits of friends and colleagues. As an example, this past weekend, Sapone Wongkaew, who was a graduate student in Plant Pathology from Thailand at Macdonald between 1977 and 1981, came to dinner. He is visiting the Oil Seeds Research Institute (IRHO) here in Montpellier, and we crossed paths surprisingly at the CIRAD Cafeteria. He was living in Robertson Terrace with his wife Hillary, from Australia, when Joy and I were living there as well. The world is small and Macdonald graduates seem to be everywhere. The other Mac graduate in this marriage, Joy, will now tell her story.

Mac, Marriage, and a Parallel Career

I grew up in Quebec City and for as long as I can remember I planned to go to Macdonald College. My mother, Connie Salter, was a teacher and had received her teaching diploma at Mac in 1942. Her two sisters were also teachers from Mac. My grandmother MacAulay and three of her sisters had taken the teaching course at Macdonald shortly after it opened. I have a picture taken around 1910 of my great grandparents in front of the Main Building. My father's sister, Dawn MacAulay Broughton was a hospital dietitian, a Mac BSc(HEc)'52 graduate.

I wanted to take Home Economics Education at Macdonald College but when I applied in 1969, I was advised that Education was moving downtown. This was terrible! I didn't want to go downtown to McGill, and I quickly decided to reapply for the Food Science option at Macdonald.

I began first year (later called PABS I) and on my way to French in the Poultry Building I met a foreign student dressed in a three-piece suit - Mehdi. Our class schedules were identical, and we went to all our classes together and quickly became close friends. We chose the same options the next year so our schedules would again be the same. I decided to switch to Agriculture and took the Microbiology option in my first year but for the next three years we took as many courses together as possible.

After graduation in 1974, I worked for Kraft Foods for a year. Mehdi and I were married in 1975 and from 1975 to 1983 I worked in the Montreal area in the pharmaceutical industry. I was primarily preparing submissions for new drugs which these companies wanted to introduce into Canada. These submissions were sent to Health and Welfare Canada and often required telephone discussions and meetings in Ottawa with different officers at the Health Protection Branch (HPB).

Our son Mekki was born in 1981, and I was at Pharmacia Canada from late '81 until we moved to Otawa in 1983. In Ottawa I worked for the Canadian Pharmaceutical Associa-

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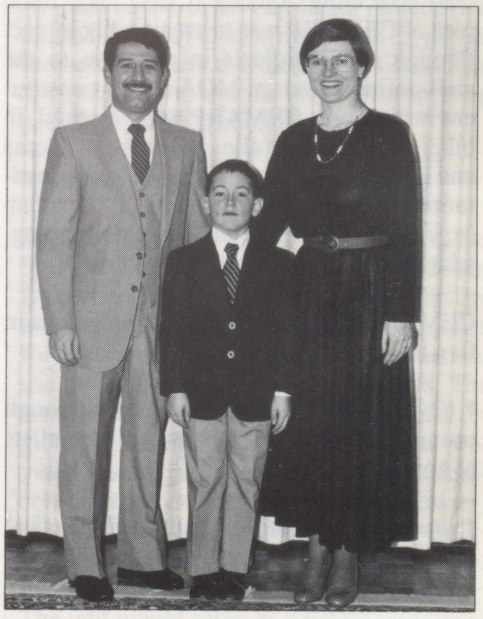


Mehdi, Joy, and their young son Mekki.

MAC INTERNATIONAL

CEMARP - Small Projects Create a Big Impact

by Dr. Mohamed Faris, Project Manager, and
Magdi Latif, Project Officer

Agriculture in Egypt today is of vital importance to the present population of 50 million - a population that is growing at the rate of one million people every eight months. Rural people depend on agriculture for their livelihood and millions of urban consumers of food and raw materials need secure supplies at reasonable cost. Although there are already high levels of crop production, Egypt still has enormous potential for increasing production on existing arable land. One of the important factors hindering the realization of this potential has been the lack of development and use of new, improved technology. Egyptian planners, researchers, and policy makers are currently placing great importance on the upgrading of research and extension institutions in order to improve agricultural methods and increase food production for the benefit of all Egyptians.

CEMARP (the Canada-Egypt-McGill Agriculture Response Program) was launched in the summer of 1986 with an initial funding of $5 million by the Canadian International Development Agency (CIDA) to Egypt's Ministry of Agriculture and Land Reclamation (MOA). McGill University (Macdonald College) was selected by CIDA as the Canadian Executing Agency (CEA). The basic idea of CEMARP was to create a big impact through small projects in response to the well-defined needs of MOA and its constituent institutions. CEMARP was designed, in other words, to help alleviate those problems and bottlenecks identified by the MOA institutions through the assistance of Canadian expertise - all within the available funding, administrative, and time limitations.

CEMARP has concentrated its resources in five important areas:

* development of human resources through training of Egyptian scientists and specialists at home and abroad;

* strengthening institutions through physical resources such as equipment, materials, spare parts, and research instruments;

* transfer of technology through short-term consultancies, collaborative activities, twinning between institutions, and exchange of scientists, researchers, and technicians;

* improvement in production in selected farming activities and on pilot farms; and

* enhancing the role of women and promoting their participation in all activities related to the development of agriculture.

In order to function effectively, CEMARP has offices in Cairo and at Macdonald College. The Cairo office, opened in May 1986 under the leadership of Dr. M. Faris as Project Manager, is the nerve centre where most of the planning and operations take place. The office at Macdonald College provides necessary support to the Cairo office with regard to logistics about acquiring materials and equipment and professional services as required, monitoring activities, controlling the flow of funds, and resolving problems if required. The Cairo and Macdonald offices are in touch with each other on a daily basis through computer-aided communications system (including a facsimile machine). In addition, Dr. Faris returns to Canada on a quarterly basis for consultations, reporting, and so on.

Through its small projects — designed and developed in mutual consultation between CEMARP officials and Egyptian project leaders — CEMARP has provided equipment and material, arranged for consultant services and technical missions, sponsored workshops and seminars for exchange of agricultural technologies between Canadian and Egyptian scientists and researchers. CEMARP has used the services of several agricultural specialists from Macdonald College and other institutions in Canada and Egypt.

CEMARP is now in its second phase since the middle of 1988. Its impressive results in the first phase convinced the authorities in CIDA and in Egypt's MOA to extend its life. The following are some of the highlights of CEMARP's achievements in Phase I and activities under way in Phase II.

CEMARP Phase I

McGill University established the CEMARP office in Cairo in May of 1986. In the first two years, CEMARP implemented 22 small projects (costing on average $150,000) out of over 70 proposals submitted by various institutions and agencies of MOA. At the end of 1988, almost all of the projects were complete. A majority of these projects are in applied agricultural research, involving production and transfer of appropriate packages of technology for Egyptian farmers.
The original idea of CEMARP has been reaf-

CEMARP 1 Project Sites

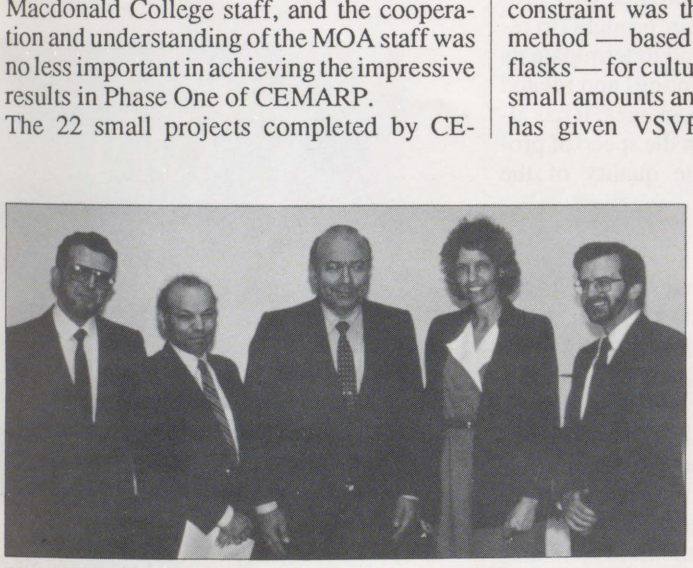
firmed by the success of these projects in meeting the specific needs of MOA within Canadian capabilities. CEMARP has responded with speed to alleviate small but critical constraints in the activities of several MOA units. The Egyptian participants — project leaders and others — have been impressed by the speed of project completion. They have also appreciated other aspects of CEMARP; ability to define the project themselves; use of technical advisors in developing the project proposal; use of appropriate technologies to solve specific problems; development of human resources; building and strengthening of institutions, and access to foreign exchange to purchase equipment and to participate in training missions and attend conferences abroad.

The success of CEMARP has been due largely to its flexibility and speed in approving projects, providing foreign exchange and delivering goods and services to the recipients. The overall organization and decentralized decision-making in project planning, selection, and implementation were the important factors. Dr. Faris's efforts were fully supported by CIDA's designated team, Macdonald College staff, and the cooperation and understanding of the MOA staff was no less important in achieving the impressive results in Phase One of CEMARP.

The 22 small projects completed by CEMARP in its first phase show great diversity in terms of their contribution to one or another aspect of activities under way for rapid agricultural development in Egypt. In several of the completed projects the outputs have started to emerge. Some of these outputs are new, while others have increased substantially. The training programs and supply of equipment have had definite impact on the quality, speed, and volume of output and activities. The initial results indicate that the equipment and materials provided to the recipient units of MOA are functioning well. Some examples given below will explain the point.

1. Fowl Cholera Vaccine Production

The Veterinary Serum and Vaccine Research Institute (VSVRI) in Abbassiya near Cairo has been producing vaccines and serums for several decades. Fowl cholera has been a deadly disease in Egypt. Its periodic epidemics have had devastating effects on poultry production and farmers' incomes. At present, the demand for cholera vaccines is at about 20 million doses per year, but VSVRI has a capacity for only 6 million doses. The major constraint was the small batch production method — based on large numbers of small flasks — for culturing the vaccine, producing small amounts and at a slow rate. CEMARP has given VSVRI some equipment (e.g., steam generator, a packaging line, turbine homogenizer) to make use of the existing (but unused) fermentor and autoclave. CEMARP's contribution has already increased the production of vaccine threefold in one year!



CEMARP project team meeting with Dr. Yousef Walley at the signing of CEMARP on March 20, 1986, from left: Dr. M.A. Faris, Mr. Aly Shady, Principal Resources Officer in CIDA, Hon. Dr. Yousef Walley, Deputy Prime Minister and Minister of Agriculture and Land Reclamation, Ms Donna Cochran, Project Team Leader of CIDA and Ambassador Marc Perron.

2. Artificial Insemination Units

The General Authority of Veterinary Services (GAVS) in Egypt has 27 "job lines" in six Governorates for small farmers to use the artificial insemination (AI) technique for improving their cattle breeds. CEMARP had added three new job lines in Kafr-el-Sheikh Governorate. Each is serving three villages with about 1,500 to 2,000 animals. The job lines are equipped with necessary material and equipment for AI work, including a pickup truck. A trained veterinarian visits seven to eight villages twice a day at times and places well publicized far in advance. He provides the AI service with necessary technical information and maintains registration cards to store the data in a computer also provided by CEMARP.

3. Embryo Transfer Technology

The Animal Production Research Institute (APRI) at Sakha in the Northern Delta has been equipped with facilities for using the embryo transfer (ET) technique to improve the local breeds of cattle as a better alternative to importing foreign breeds for the same purpose. Researchers have also come to Canada for training in the use of ET. The ET laboratory is already providing liquid nitrogen to the AI job lines provided by CEMARP. The laboratory is also being used to train technicians and researchers in ET and AI techniques. The CEMARP funded ET unit is the first of its kind not only in Egypt but throughout Africa and the Middle East. Plans are underway to use the facility for training people from other countries.

4. Central Soil Testing Laboratory

The Central Soil Testing Laboratory of the Soil and Water Research Institute (SWRI) in Dokki near Cairo is the best equipped facility in Egypt. It is used to analysze soil samples for recommendations on land reclamation, use of fertilizers, and fertility surveys. The samples are received from farmers and regional research stations. CEMARP has provided several pieces of equipment — technicon autoanalyzer, filtration unit, autosampler, IBM PC with software, etc. — to increase the capacity of the laboratory and to improve the quality of its work on soil testing. The unit would serve as a model for similar laboratories being planned at the regional

level in the country. Several of the laboratory workers were trained in using the automated equipment by Canadian consultants who installed the equipment as well.

5. Legume Inoculant Production

The legume inoculant production laboratory of SWRI in Sakha has been in operation for several years, producing inoculants to meet the increasing demand by farmers, particularly for use on the newly reclaimed lands in Egypt. Increasing the amounts of nitrogen fixed in soil by some legumes gives a very high return on investment in inoculants; the estimate is about Egypt LE 50 million per year for Egypt one million investment. The production unit in Sakha needed to replace some of its old equipment and expand its capacity to produce in large batches for rapid delivery in the field. CEMARP has provided Canadian peat — to last for three years — centrifuges, and a pickup truck. Three professionals were trained in Canada on techniques in legume inoculant production. The project will have a direct impact on crop yields and cost of production by reducing farmers' dependence on chemical (nitrogen) fertilizers as a result of improved nodulation with legume inoculant.

6. Testing Quality of Cotton

Egypt is known for its quality cotton, and the Cotton Research Institute (CRI) is one of the oldest units of MOA. It is responsible for breeding new and better quality cotton, controlling the quality of seed used by farmers, and testing the quality of yarn and fibre for textiles sold in Egypt and exported. CEMARP has provided some new equipment (like fibre testers, stelometers, fibrographs) to test the length and strength of fibre. It has also contributed other equipment to improve the precision and speed of work. CEMARP's contribution has already increased the number of tested samples by 150 per cent in one year!

7. Documentation Centre for Agriculture

The Egyptian Documentation and Information Centre for Agriculture (EDICA) plays an important role in indexing agricultural literature, creating the current database and retrieving technical and scientific information nationally and internationally to be used by researchers and policy makers in Egypt. While EDICA has had good facilities for data collection, retrieval and processing, it was greatly handicapped for years by its dependence on a printing outlet in Vienna, Austria. Delays in printing the material had become a serious problem in disseminating necessary data and information. CEMARP has provided EDICA with two laser printers (to replace its old line printers and to terminate its dependence on outside printing) and related accessories and software packages. It has already made a big impact on the speed of production and improved the quality of the printed product.

▲ Dr. Yousef Walley, Deputy Prime Minister and Minister of Agriculture and Land Reclamation, and Dr. Roger Buckland, Dean of the Faculty of Agriculture, inaugurate the Soil Information System, (SIS) Centre (CEMARP Phase I) at the Soil and Water Research Institute (SWRI) of Egypt.

Canada-
Agricultural

Mr. M. Faris, left, CEMARP Project Manager, and Marcel Couture, Associate Dean, Community Relations and CEMARP consultant, visiting the Management Information Systems (MIS) Training Centre of CEMARP in Egypt. The Centre has been in operation since January 1988 and, as of March, 1989, more than 500 MOA staff have been trained on the use of personal computers and various software packages. ▶

CEMARP PHASE II

Following the mid-term review of CEMARP in the summer of 1987, CIDA and MOA decided to start the second phase of CEMARP in mid 1988. The decision was based on the success of CEMARP in less than two years. The second phase of CEMARP — also funded by CIDA with a grant of $5 million for five years — will focus on the same set of activities through small projects as in the first phase, except that part of the funds will also be used for faculties of agriculture in selected Egyptian universities. Most of the CEMARP funds will still be used for the constituent institutions of MOA.

▲ Dr. Bill Marshall, 7th from left, Macdonald College, and Mr. Magdi, the graduation ceremonies for train

pt-McGill
onse Program

Dr. Bruce Downey being shown Friesian-Balady crossbred calves, offspring from the frozen semen Artificial Insemination Program, in a small Egyptian village.

Dr. A.F. MacKenzie, Professor of Soil Science at Macdonald College, supervising the Soil Analysis Training Program (CEMARP project in Human Resources Development) that was held at SWRI with Dr. Dirk Tel, Department of Land Resources of Guelph University, training the SWRI staff on Technicon Autoanalyzer.

g, Professor of Analytical Chemistry at
rd from left, CEMARP Project Officer, at
Soil Analysis Training Program.

Twelve projects have been selected for funding in the second phase so far. A sample of these small projects is given below.

1. Biogas for Rural Households

The Soil and Water Research Institute (SWRI) of MOA will construct ten small biogas digesters for converting farm residues and waste material into clean gas to be used by households in the village of Tokh-Tambasha. They will serve as demonstration units and will use the knowledge of biogas technology that SWRI has developed in its laboratory in Dokki. The biogas units are expected to provide a clean and affordable form of energy to rural families and will, in particular, affect the quality of life for women.

2. Improving Disease Control in Livestock and Poultry

The Immunology Department of the Animal Health Research Institute (AHRI) in Dokki analyses over 600,000 samples annually from various parts of Egypt for diagnosis of certain diseases and epidemics. It works closely with the General Authority of Veterinary Services (GAVS) in the field. The project will provide several pieces of equipment and materials to develop diagnostic techniques (in preparation of reagents, antigens and antisera) for improved surveillance of significant viruses and bacteria affecting cattle and poultry in various parts of the country.

3. Tissue Culture Techniques for Agricultural Production

MOA has had an Agricultural Development Systems Project (ADSP) for the last 10 years to develop citrus and olives and post-harvest management of a variety of agricultural products. Investment in tissue culture techniques has already started to show a high pay-off in the form of disease-free bananas. ADSP has been greatly constrained by the lack of foreign exchange to expand its operation in tissue culture techniques in response to the increasing demand of farmers, CEMARP will provide several pieces of equipment to ADSP to develop the required capability.

4. Recording System to Improve Dairy Herds

CEMARP will establish a recording system for dairy herd improvement at the Animal Production Research Institute (APRI) in Sakha. The project will provide the technology for dairy herd analysis, including software for data processing, expert training in data collection, experimental design, storage, processing, sire evaluation, and selection of bulls. It will also include other necessary equipment and material with the services of Canadian consultants. The Dairy Herd Analysis Service at Macdonald College will be used as a back-up system for the project.

Macdonald Staff Involvement

From the start, Canadians have been involved in each project in both Phase I and Phase II. Dr. Roger Buckland, Vice Principal, Macdonald College, and Dean of the Faculty of Agriculture, has made three trips to Egypt to meet with government officials and to visit various research stations and universities. The Project Manager, Dr. Mohamed Faris is an Associate Professor in the Department of Plant Science. The Project Officer in the Macdonald College office, Magdi Latif, received his MSc here in 1987.

(turn to page 27)

Fun Fact Fable Fiction

by Ralph H. Estey
Emeritus Professor
Department of Plant Science

Pussy Willows

The Willows (nearly 75 species of Salix) grow in every province and territory in Canada. They are found in a larger area than any other tree species. In contrast to this, the Redbud has the most restricted habitat of all Canadian trees, being native to one island in Lake Erie.

Typographical Error

On the dry prairie, farming is done by irritating the soil.

In a Hansom Cab

A comely young widow named Ransom
Was ravished three times in a hansom.
When she cried out for more
A voice from the floor
Said, "Lady, I'm Simpson not Samson."

Samson

Samson was that legendary strong man of ancient Israel, who died of fallen arches (Judges 16: 29-30).

Journal History

The English edition of a monthly agricultural journal (it had various names) published by the Quebec Department of Agriculture was edited from 1908 until 1920 by Professor Wm. Lochhead of Macdonald College, and from 1920 to 1936 by S. R. Hodgins. When the Duplessis Government discontinued that journal, in 1936, there was no official journalistic link between the English-speaking farmers and the Provincial Department of Agriculture until the Journal you are now reading was established in 1940.

Responsibility

At a mythical international meeting to discuss the history and potential threat to man of a newly discovered insect, the discussion ranged from: The sex life of the insect, by the representative from France; Does it have any military potential? by the man from the USSR; Is it in any Arab country? by the Israeli delegate, to: Is it likely to be a federal or a provincial responsibility? by the Canadian member.

Nova Scotia Towns

Down here in Nova Scotia there are names to stir the soul;

There's a place called **Ecum Secum**, and there's a **Kitiwiti Shoal**
There's a homey **Chimney Corner** and a pastoral **Cow Bay**,
And there's old **West Newdy Quoddy** that you ought to see some day;
And if we were minus **Minus** would we mind it very much,
So long as we kept **Paradise, Elysian Fields**, and such?

Herman R. Burbank

Annie and Anvil

On October 24, 1901, Annie Taylor, a 43-year old widow, went over Niagara Falls in a barrel with a hundred-pound anvil, to keep the barrel upright when it floated. She survived without serious injury.

Ballooning

The first aerial travellers in a man-made balloon were a sheep, a rooster, and a duck. They were in a cage suspended from a balloon, made by its inventors, in a demonstration before the king and queen of France, September 19, 1873. It was nearly a month later before a man ascended in a balloon.

Many spiders have been "ballooning" for centuries. They climb to a suitable launching site, release a silk "balloon" into the wind and just hang on. Some species are known to have travelled more than 25 kilometers from their launching point.

PCB Mania

Many people have worked for several years in contact with PCBs, both in liquid and vapour forms, and there is not one documented instance of anyone in Canada having died from PCB exposure. In contrast to this, cigarette smoke kills more than 30,000 Canadians every year. If the media would now make people as afraid of tobacco smoke as they have of PCBs, hundreds of lives would be saved.

The Linoleum Cutter

"Why are you cursing, George?" asked his wife.

"My new razor is so dull it's tearing my face." shouted the disgruntled husband.

"But it can't be that dull. Surely your beard isn't tougher than our linoleum."

Language Growth

In 1850 the English dictionary contained fewer than 50,000 words; today it includes more than 500,000, thus indicating an average increase of about 10 new words a day.

The King James version of the Bible contains only 5,000 different words. Milton used nearly 10,000 different words and Shakespeare is said to have used about 12,000. By today's standards, one would not be considered well educated with a reading knowledge of only 12,000 words.

Hero or Heroine?

Sara Edmunds, a New Brunswick girl, disguised herself as a man and joined the United States Army as Franklin Thompson. She worked for awhile as a 'male' nurse in the Northern Army during the Civil War but soon became involved in army intelligence as a spy. Being a master of disguises she often posed as a woman to get important information. Several of her hair-raising experiences were stranger than fiction. When she died, in 1901, she was buried in the Grand Army section of a cemetery, in Texas. Sara was one of the civil war's true heroes, or heroines, and she is virtually unknown in Canada.

Seeking Solutions

by Dr. Robin K. Stewart
Associate Dean, Research

Developing countries face major problems in the area of post-harvest technology. Not only do many of these countries lose precious food resources in the field, but major losses are also encountered once foodstuffs are being stored, transported, or marketed as well as once the consumer receives them.

Again Macdonald College has a special expertise which we feel can contribute to solving some of these problems. Last year, McGill International provided a pilot seed grant to Dr. Ben Simpson and Dr. Jim Smith of the Department of Food Science and Agricultural Chemistry to go to the Department of Biochemistry, University of Science and Technology (UST), Ghana, to identify areas in which Macdonald College could best assist UST and Ghana.

As a result of this visit, a proposal for institutional development was submitted to the Canadian International Development Agency (CIDA). This proposal was approved by CIDA for a five-year period and will involve the training of two MSc and two PhD graduate students and upgrading of two staff members in the areas of food processing and packaging, food microbiology, and food chemistry. The first students and staff member are expected to arrived this fall. On completion of their studies, the trainees will form the nucleus for the establishment of a food science and technology program in the Department of Biochemistry, UST, Ghana. It is also envisaged that these trainees, in conjunction with Macdonald College staff, will develop simple post-harvest handling techniques for shelf life extension of indigenous foods.

There are a couple of interesting aspects of this project which strike me. Occasionally, I hear criticism of Canadian university staff for not aiming all their guns at Canadian problems and dissipating their energies abroad. Yet here are two of our bright young research workers, both very successful in the Canadian research milieu, getting more involved at an international level. I am delighted to see it, as international activity is, to my mind, an essential component of universities.

Dr. Simpson is Ghanaian born and his knowledge and interest in his country of origin has, I'm sure, promoted this link between the two institutions. In international development work more and more emphasis is placed on a two-way transfer of information and resources. There is no doubt that Canada has benefited from Dr. Simpson's coming to this country, but equally Ghana will benefit from the project and, we hope, the future commitment of Drs. Simpson and Smith and their colleagues at Macdonald College.

CEMARP

continued from page 25)

On Dr. Buckland's last visit in January he met with Dr. Yousef Walley, Deputy Prime Minister and Minister of Agriculture and Land Reclamation, Dr. Yehia Hassan, Governor of Munofia and Chairman of the CEMARP Selection Committee, Deans of Agriculture of the Universities of Cairo, Alexandria, Helwan, and the Canadian Ambassador in Egypt to review CEMARP achievements in Phase II. He participated with Dr. Walley in the inauguration of the Soil Information System Centre (SIS) in the Soil and Water Research Institute of Egypt. He also visited the Management Information System Training Centre, Animal Production Research Institute, and the Veterinary Serum and Vaccine Research Institute.

Other staff members involved in CEMARP projects are: Drs. Bruce Downey and Flan Hayes, from the Department of Animal Science, and Dr. M. Fanous, from the Department of Plant Science. Dr. A.F. MacKenzie of the Department of Renewable Resources has been working on two projects for CEMARP: the Central Soil Testing Laboratory and the Soil Analysis Training Program (SATP) that was held on February 28 to March 25, 1989. Dr. William Marshall of the Department of Food Science and Agricultural Chemistry was recently in Cairo to teach the atomic absorption spectro scopy module in the SATP. Dr. Dannielle Donnelly of the Department of Plant Science is assisting in the development of a program to assist the Agricultural Development Systems Project to actualize the transfer of micropropagated, pathogen-tested banana and potato to the Egyptian growers. She visited all major tissue culture facilities and laboratories in Egypt. Dr. Bruce Coulman, of Plant Science, and Marcel Couture, Associate Dean, Community Relations, and two scientists from western Canada travelled to Egypt to review and develop the current status of canola production and processing. Dr. Robin Stewart of the Department of Entomology has been working on the Pesticide Monitoring Equipment project. Dr. Vern Vickery of the Department of Entomology has also travelled to Egypt as a consultant. Mr. Terry Monteiro, from the downtown campus of McGill University, went to Egypt to train CEMARP staff as well as MIS staff on computer software management.

As well, Macdonald College and other Canadian institutions have welcomed government officials, academics, researchers, and technical personnel from Egypt. Last January Dr. Ibrahim Ibrahim came to Macdonald College for a three-month training program in plant tissue culture techniques. As Phase II continues, so will the exchange of knowledge and information between the two countries.

Conclusion

CEMARP will continue to aim at providing support to the national efforts in Egypt to improve agricultural production for food security and higher living standards of farmers. Its strategy of responding to well-identified needs through small projects has worked well. The keys to CEMARP's success have been its flexible and decentralized organization and the speed with which it has been able to respond to project proposals. The support from Egyptian institutions, CIDA, and Macdonald College has been a major catalyst in the success of CEMARP.

Campus Life

Welcoming Change in the School of Dietetics and Human Nutrition

by Linda Jacobs Currie, University Coordinator
Professional Practice (Stage) in Dietetics
School of Dietetics and Human Nutrition

Figure 1. L to r: Mariette Samuel, BSc(FSc) December '80, Clinical Coordinator and Faculty Lecturer (Stage), Bonnie Kolomeir Marcus, BSc(FSc) December '79, our first class, and Linda Jacobs Currie, University Coordinator for Professional Practice (Stage) in Dietetics and Human Nutrition at 10th anniversary celebrations held at the Jewish General Hospital.

Figure 2: Front, l to r: K.E.L. Watson Jarvis, keynote speaker at the special 10th graduating class ceremonies, Helen R. Neilson, Emeritus Professor, Odette Drouin, presidente, Corporation professionelle des dietetistes du Quebec, Isabelle Jacobs, class speaker. Back row: Blanche Olejnik, faculty lecturer and former Stage coordinator, L. Jacobs Currie, faculty lecturer and University Coordinator for Stage, H.V. Kuhnlein, professor and Director of the School, Janine Choquette, Executive Director, CPDQ.

Something to Celebrate

Landmark events - those highlights we look back on and project forward from - have been numerous in the School over the past few months. From graduates and programs to staffing and facilities here is our news!

December 1988 brought a special celebration to the Dietetics Major as the School hosted the 10th class to graduate from the undergraduate degree which includes Professional Practice (Stage) in Dietetics. Graduates from the first class of December 1979 (Figure 1) to the present joined with dietitians and managers from centres which provide Professional Practice experiences to mark the success of the "McGill dietitians." Former School Director Helen Neilson, joined other special guests in a reception hosted by a McGill Teaching Hospital, the Sir Mortimer B. Davis Jewish General Hospital (Figure 2). Now the challenge is to surpass the positive accomplishments noted that evening: 90 per cent employment of graduates, increasing numbers in graduate study, positions in all aspects of dietetic practice, networking of graduates in every province, in the United States, and in Europe, and professional growth demonstrated by the innovation and levels of responsibility assumed by graduates!

Our complement of full time staff is now complete (Figure 3) though official spring appointment dates or immigration procedures preclude photo sessions for a few! The faces will seem new to many readers, so equating names with broad course subject areas and research areas (see below) will help you:

The expertise of sessional lecturers is called upon for communications, psychology, and personnel management, and other faculty units offer the remaining courses required in our programs. Six Clinical Coordinators, dietitians, supervise the ever-growing enrollment during Professional Practice experiences (Figure 4 clockwise from right: Margaret Kestenbaum, Joane Routhier Mayrand, Carol Norrad, Mariette Samuel, Maureen Lucas, Beth Armour), with my position as University Coordinator linking campus with Stage.

New Macdonald facilities will augment opportunities for professorial staff to increase research efforts and enhance the

cultural ecology of human food and nutrition, nutrition of native people	Dr. Harriet V. Kuhnlein
food fundamentals, advanced clinical nutrition, nutrition and behaviour	Dr. Louise Thibault
food service systems, trace minerals	Dr. Arazoo Rojhani
sensory evaluation, plants as food and medicine	Dr. Tim Johns
human nutrition, research methods, lipids	Dr. Stan Kubow
introductory nutrition, research methods, international nutrition	Dr. Katherine Tucker
clinical nutrition, maternal and child nutrition, carbohydrates	Dr. Kris Koski
applied nutrition, nutritional assessment, zinc	Dr. Zafrallah Cossack
community nutrition, research methods, epidemiology	Dr. K. Gray-Donald
clinical nutrition, dietetics professional practice	Linda Jacobs Currie

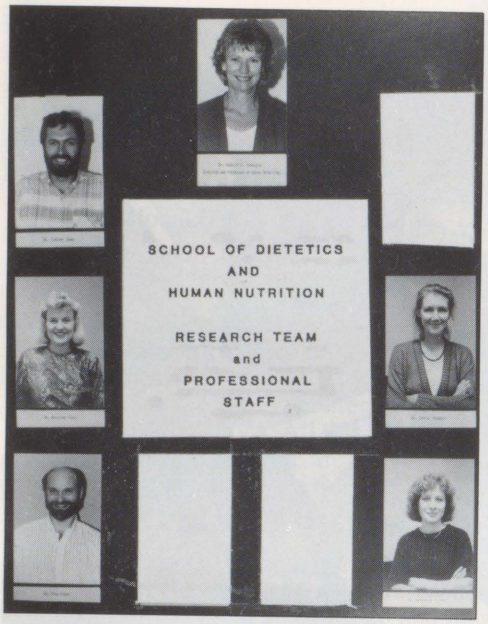


Figure 3. Clockwise from the top, Drs. Harriet V. Kuhnlein, Louise Thibault, Katherine Tucker, Stan Kubow, Kris Koski, and Tim Johns. Missing: Drs. Arazoo Rojhani, Zafrallah Cossack, and K. Gray-Donald.

graduate program (Figure 5). The centre core and south side of the Macdonald Stewart building main floor have been fully renovated to house state-of-the-art research laboratories and revamped office space. All surrounding departments will be glad when the clatter and banging stops! The graduate program in human nutrition leads to MSc and PhD degrees. As our recruitment brochure indicates, these studies include "course work and thesis research in the areas of nutritional biochemistry, clinical nutrition, community or international nutrition." That's why the staff, though "in the lab," may be either on campus, on the Pacific coast, or in the high Arctic, Latin America, or Africa! Added to recent updating of the Southam Foods labs for undergraduates the School is indeed in a favourable position for laboratory work.

The two undergraduate thrusts in the School remain the Nutrition Major, with emphasis in nutrition and food, nutrition and populations or nutritional biochemistry, and the Dietetics Major. Both have been extensively revised and approved by the university for 1989 implementation. The dietetics program has maintained the format described in an earlier article[1] , but has grown dramatically in student numbers. No more graduating classes of 18 "McGill dietitians;" now the class size is between 35 to 50! The expanded student base has provided the concurrent challenge of placement for Professional Practice (Stage) in Dietetics experiences. Forty weeks of practical, supervised activity in the professional milieu are required of all dietetic students, and McGill's affiliation base has continued to grow to provide these sites. We now have McGill Stages in over 25 hospitals, six private clinics, private industries and food companies, and in 25 community health centres or school boards.

Finally, in June 1989, graduates from the undergraduate programs of the Nutrition and the Dietetics Majors will be the first group to receive the new McGill undergraduate degree BSc (Nutritional Sciences). The new royal blue and tan hood colour will reflect their education in the scientific fundamentals of their disciplines and show the link of human nutrition and food to medicine and applied health science.

Figure 4. Clockwise from right: Margaret Kestenbaum, Joane Routhier Mayrand, Carol Norrad, Mariette Samuel, Maureen Lucas, and Beth Armour.

As noted at the beginning:
Something to Celebrate!

References

[1]Jacobs Currie, L. 1980-1981. Educating a Professional Dietitian in the 1980s. Macdonald J. 41(12)/42(1): 3-6.

Linda Jacobs Currie's popular column "Issues in Human Nutrition" will return in the next issue of The Macdonald Journal.

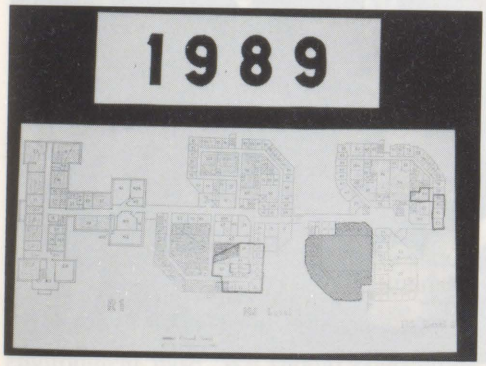


Figure 5. Floor space for the School: before and after.

December 1988 Dietetics grads will graduate in June 1989.

Beyond These Gates

Profile: The Honourables from the Class of '68

One wonders if this is a first. It must be! Two good friends, classmates, and 1968 BSc(Agr) graduates from Macdonald College of McGill University are now serving in the cabinet of the Nova Scotia government. The Honourable George G. Archibald was appointed Minister for Agriculture and Marketing in January 1989, and the Honourable Donald W. Cameron was appointed Minister of Industry, Trade and Technology on April 22, 1988. He has also been Minister of Fisheries and Minister of Recreation.

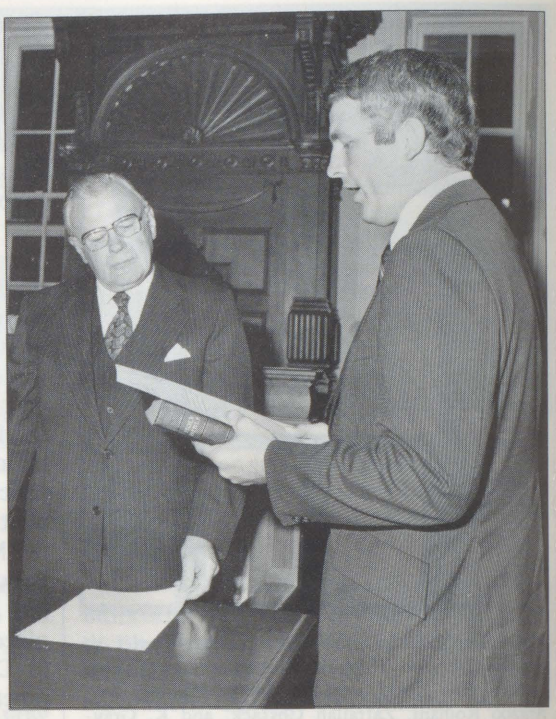
George Archibald, who represents Kings North in Nova Scotia, was born in Halifax and attended the Nova Scotia Agricultural College before coming to Macdonald College. Prior to entering politics he was a dairy farmer in Centreville. He was extremely active in farm organizations: President of the Kings County Federation of Agriculture, President of the Nova Scotia Animal Breeders Co-op, and a member of the Holstein-Friesian Association of Canada.

From 1974 to 1979 he was Area President of the Nova Scotia Progressive Conservative Association and President, Kings County P.C. Association 1971-1978. He was first elected to provincial office in 1984 and since that time has served as member of the Agriculture Committee, 1986, and Chairman 1985; member of the Industry Committee, 1985-87; member of Public Accounts Committee 1986, and Vice-Chairman, 1987; and member of Human Resources Committee, 1987.

George and his wife Katherine Anne (Crookshank) have three children: Catherine Dean, 15, Anthony Gordon, 13, and Margaret Anne, 10. He has worked with the Rotary Club, the church, and the Boy Scouts and relaxes by skiing, horseback riding, running, and gardening.

Donald W. Cameron is from Egerton in Pictou County and came to Macdonald College in 1964 straight from high school. He was first elected to the Nova Scotia Legislature on April 2, 1974, and has been re-elected in 1978, 1981, 1984, and 1988. He was appointed Minister of Recreation on October 5, 1978, and held that portfolio until June 1979. He was also Minister of Fisheries and held that portfolio until June of 1980. Donald Cameron maintained the family dairy business for several years. He chaired the Legislature's Free Trade Committee which conducted hearings on the Canada - U.S. free trade agreement late in 1987. On April 22, 1988, he was appointed Minister of Industry, Trade and Technology.

Donald Cameron is married to the former Rosemary Simpson of Quebec City. Rosemary is also a graduate of Macdonald - in Education - and was the Homecoming Queen in 1967. Donald and Rosemary Cameron have three children: Natalie, David, and Christine.



Donald W. Cameron being sworn in by His Honour Lieutenant Governor Clarence Goss in 1978.

George Archibald being sworn in by His Honour Lieutenant Governor Alan R. Abraham.

FOCUS **Environment**

Sustainable Agriculture: the Choices

by Flore Fournier
Diploma in Agriculture Program

Why would an academic whose field of expertise is economics, decide to spend a considerable amount of time and energy on the development of sustainable agriculture? This is an easy question for me to answer on my own behalf, but a much tougher one to answer on behalf of the Faculty of Agriculture of Macdonald College.

For the past several months I have been the coordinator of a joint venture involving Macdonald College and Agriculture Canada to establish a centre for sustainable agriculture on this campus. We have had hours of meetings, attended several conferences, and visited other institutions. All this has taught me at least one thing: there are probably as many approaches to sustainable agriculture as there are members of this faculty.

As a faculty we have agreed on the following definition: "A sustainable agriculture is one that ensures that humanity's present and future food needs are met, while at the same time conserving and enhancing the resource/environment base"[1]. This definition identifies crucial issues and provides a good start. However, when we get down to developing the research, demonstration, and extension agenda for a centre in sustainable agriculture, as we are now doing, we find that there are many more questions requiring answers and items still left to be discussed. For example, should the emphasis be on striving to meet food needs or on conserving and enhancing the resource/environment base? How do we evaluate whether in fact conserving/enhancing the resource base has been achieved? What should we focus on in our investigations and demonstrations?

Although we must make sure that pluralism and freedom of scientific investigation are preserved, we must also have a sufficiently coherent agenda for the centre to have, on the one hand, a "specific product" to offer to its users and, on the other hand, an atmosphere in which the members will develop a team spirit and will feel that they are all moving in the same direction.

What direction do I think the centre should move in? To me, work in sustainable agriculture should emphasize the conserving/enhancing of the resource/environment base. We should concentrate our efforts on developing agricultural systems that will minimize the use of non renewable resources and synthetic inputs in the production of both animals and plants, relying instead on natural processes and renewable resources. By so doing we will not only help to alleviate some of the pressure on dwindling oil reserves, we will also reduce air, ground, and water pollution.

Agriculturists know that environmental threats caused by agriculture are not restricted to what we may find in our food. They may also be found in the producing, transporting, and handling of synthetic inputs — probably the most striking example of this being the Bhopal tragedy. As well, failing to recycle farm residues, such as manures that our present agricultural systems have too often neglected to use as resources, produces other environmental problems.

> **"... producing food ecologically is the real challenge today rather than feeding people."**

While developing systems that are more in harmony with nature, the agriculturist must indeed keep economics in mind. We must feed the population at the most reasonable cost and ensure an adequate income for the farmer. However, I very often feel that we have yet to realize that our agricultural development agenda has to switch from that of a famine to a pollution-threatened society. Even if I risk being misinterpreted, I dare to say that producing food ecologically is the real challenge today rather than feeding people. In the twentieth century, except for a few years of scarcity, our western societies have lived with chronic surpluses and depressed markets. We have also realized that the famine that prevails in the Third World cannot be overcome by our surpluses. In fact the best thing we can probably do for the Third World is to help them develop simple techniques that will make better use of their local resources to produce their own food.

Can you tell me of a more exciting challenge for an agriculturist today than to be involved in sustainable agriculture?

[1]Modified from Macdonald 2000 planning document by Dr. Robin K. Stewart, Associate Dean, Research.

(from page 21)

tion. I was the Assistant Editor of the textbook "Canadian Self Medication" which was published in 1984 and reviewed the texts for the Compendium of Pharmaceuticals and Specialties. In 1986 I was with the Canadian Hospital Association as Assistant Editor for two publications. I next began working with the Bureau of Nonprescription Drugs, Health Protection Branch, Health and Welfare Canada. My work involved the evaluation of labelling and composition of over-the-counter drugs to ensure that these complied with the Canadian Food and Drug Act and Regulations before being sold in Canada.

The work was interesting and gave me a different perspective on the drug submission process which I was so familiar with from the industry point of view. I am now on a five-year leave of absence. Overall I think that we both have been very fortunate in that each of the changes in our careers has not adversely affected the other's career. When I left Montreal I had to leave a very good job that I enjoyed but I found another worth-while one in Ottawa, and I finally got a job with Health and Welfare which is what I always wanted. When we came to France, I began taking pharmacy courses at the Université de Montpellier. I have now dropped these as we are expecting our second child in May. Over the next two to three years my career will be "on hold" so that I can spend time with our children, and we can take full advantage of living and travelling in Europe, and receiving visitors. It will be a pleasant break from working full time!

Catch Crops and Intercrops

FULLY EQUIPPED AGRICULTURE

If you've been producing a monoculture of corn for a number of years and your soil is beginning to show serious signs of exhaustion or if you can't afford to sacrifice one season's harvest to allow for rotation, catch crops and intercrops should interest you. "Fifteen to twenty years ago, it was normal to sow a forage plant like clover at the same time as grain. Unfortunately, this practice has been abandoned" explains Denis Côté, at the service de recherche en sols at the ministère de l'Agriculture, des Pêcheries et de l'Alimentation.

Faced with the possibility of soil exhaustion, the advantages of catch crops and intercrops are even more obvious if you grow corn, a more demanding crop on the soil. When a forage plant is sown at the same time as the main crop, this is a catch crop. If it reaches full maturity later than the main crop, the secondary crop is an intercrop. For example, red clover can be sown in the spring in the second growth of winter wheat. The wheat will be harvested at the end of July, while the red clover is plowed in the following spring. Quite often, however, secondary crops are not harvested. The two major advantages of secondary crops are that they act as a ground-cover and improve soil structure.

Only three weeks after it is sown, at the same time as corn for example, a ground-cover of clover or alfalfa appears. Gradually, the ground-cover will completely fill the space between the rows of corn. This technique prevents all types of erosion. Denis Côté suggests trying this method by sowing a catch crop or intercrop plant over a strip of land showing signs or erosion, for example the first six to eight rows of corn at the edge of a watercourse or a bed.

Employing this technique year after year, will improve the soil's physical properties and prevent slaking because forage plants enormously enhance evapotranspiration. Water absorption and soil aeration also improve. The use of leguminous plants will significantly increase nitrogen levels, especially where manure is unavailable.

There are also phytosanitary advantages. Catch cropping and intercropping are excellent examples of the integrated battle against insects and weeds. The use of herbicides is reduced because only wide-leaf weeds require control. The competition with forage plants keeps all other weeds in check. As for insects, "the presence of a secondary crop alters the temperatures and moisture levels some crop destroyers are accustomed to. In fact, more insect species are present, but they are less threatening because new balances are created ", explains Denis Côté.

Contrary to some beliefs, catch crops and intercrops compete little with main crops. There is rather a form of mutual benefit for both crops. Secondary crops require more water at the outset, but when the main crop reaches a certain stage of development, its water requirements surpass that of the secondary crop. Catch crops in sandy soils may, however, be the exception to the rule. Where the water table is low, the main crop should be sown before the catch crop to allow it to reach a certain stage of development. Moreover, limiting the width of the strip of land supporting the catch crop, will reduce competition for water accordingly.

Where rotation with meadows is impossible, catch crops and intercrops are reasonable alternatives for the producer who wishes to improve soil quality and combat erosion, at the cost of only a few dollars per hectare in seed. Why deprive yourself of such an option and settle for standard agriculture, when you can have such a fully equipped agriculture.

GILLES PARENT

Agriculture, Pêcheries et Alimentation
Québec

Québec

Diploma Corner

Conversation Among a Bevy of Quail

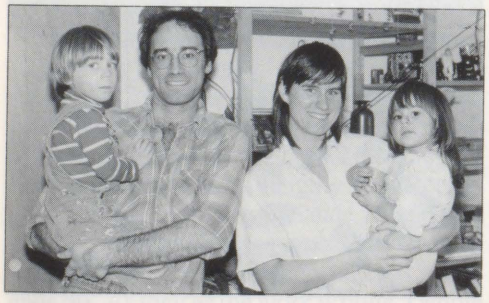
by Hazel M. Clarke

Used to be that when you sat around a farm kitchen table the farmer, his wife, and those helping out on the farm were country-born: their roots were planted deep in country soil. Recently the Assistant Director of Farm Practice in the Diploma Program, Theresa Greene, BSc(Agr)'86, and I sat around a farm table with two people who had been born in Montreal and two born just a stone's throw away from the city in nearby Rivière des Prairies and Lachine. They chose country, they are putting down roots, and they took the Macdonald College route to get there. Two are degree graduates, one a Diploma graduate, and one is still studying towards his degree. What brought them together? A quail farm in St. Jacques le Mineur.

With all these degrees, the standing head Diploma Corner is somewhat of a misnomer but Claude Rivard, BSc(Agr)'81, and his wife Michelle Durand, BSc(Agr)'82, owners of the quail farm were delighted that Debbie Ganter, Dip '88, who has been working with them since last August, was to be the focal point of the story. Debbie's boyfriend Gary Belanger, a second-year degree student at Mac who was helping out on the farm during spring break, also had no objections.

"I like Debbie. That's important to both me and my wife," Claude Rivard said. "My wife handles the finances and does the ordering, but Debbie has to tell her what and when to order. She has taken over many of my responsibilities."

Debbie likes her boss, too, "particularly because he's not there very often," she joked.



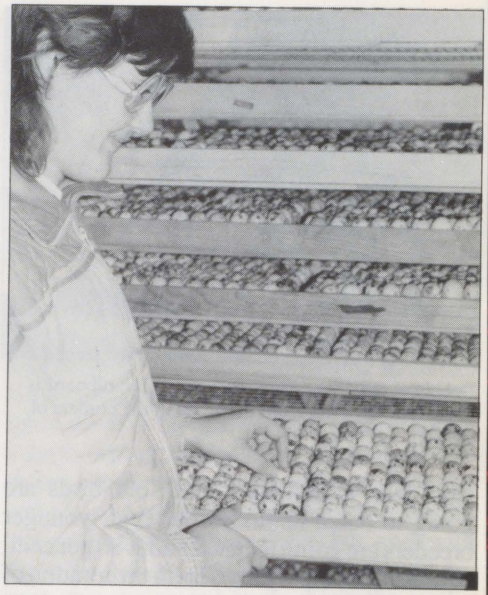
Quail farmer owners Claude Rivard, his wife Michelle Durand, and their children Maxime and Gabrielle.

"I'm general farm manager when he's not here; he's the manager when he's here." It is exactly because he is not there that Claude Rivard likes Debbie and the work she is doing. Last fall shortly after Debbie arrived on the farm, Claude returned to university, this time to the University of Montreal to study medicine. One night a week and on weekends, Claude takes time from studies to be with his wife, their two children, Maxime and Gabrielle, and to work on the farm; the rest of the time Debbie sees to it that about 36,000 quail are cared for, that 4,500 quail and 1,000 eggs are ready to be shipped to the slaughterhouse each week, and, as Claude cuts down on cost by raising his own replacer quail, she also helps with just under 2,000 breeding stock, and the hatching and care of the baby quail.

Claude, from Rivière des Prairies, was enrolled in a pure and applied program when Steve Olive, now the Registrar at Macdonald College, visited his college. He was interested in the Macdonald program; when he visited the college and saw the size, he said he just loved it: "It's small. People get to know each other. I felt at home right away." Claude majored in Environmental Biology and while at Macdonald met his wife Michelle. She was equally delighted with Macdonald.

Michelle, from Montreal, said she and a friend were bicycling one day and passed the college. "I said that's where I want to go. I saw the program and liked it and majored in Environmental Conservation." Michelle graduated in 1982. She worked part time as a nature interpreter in the Morgan Arboretum and Claude worked part-time in the Raptor Centre. They have maintained their ties with Macdonald: Michelle is still associated with the arboretum, and Claude set up the stock of quail at the Raptor Centre and also supplies Dr. Sherman Touchburn, of the Department of Animal Science, with quail for research.

Before graduating, Claude had a variety of summer jobs including helping his father with the farm Faisanbec. "My father and a friend started this farm as a hobby in 1975. As the name implies, they were raising pheasants. After graduating, a loan enabled Claude to buy a small percentage of his father's shares and all of his partner's. Instead of pheasants, Claude switched to raising quail.



Debbie Ganter checks the eggs in the refrigerator. They are kept there before being placed in the incubator.

Claude is raising Japanese quail "There are Bobwhite and Japanese," Claude explained, "Bobwhite are bigger, but the Japanese quail is very popular with consumers because of the taste. Our main market is for fresh birds for home consumption."

One of Debbie Ganter's jobs is to take 100 females from the pens and put them into one of about 17 breeding cages. "We let them start laying eggs for a few weeks," Debbie said, and then 34 males are added to each cage. The fertilized eggs are placed in the refrigerator until we are ready to put them in the incubator for 18 days. The incubation period is scheduled so that on a Monday we can tranfer the eggs to chick boxes, place them in the hatcher where they will stay till Friday. Once the birds are hatched and dried off, they are ready to be weighed and placed in a pen."

"Our hatching rate is 60 to 70 per cent," Claude said, "and that is with keeping the

Debbie checks out one of the pens; the cardboard is to prevent the quail from piling up in the corners of the pen.

eggs two weeks. Six-month old birds are going to hatch about 30 per cent; younger breeders are going to hatch about 80 per cent, so one of Debbie's jobs is to do the rotation of the breeders. We try to make two or three changes every two or three months and by doing that we have a good turnover. We have older birds mixed with younger birds and that gives us the 60 to 70 per cent hatch."

"We try to keep the mortality rate at between five to seven per cent. We lose most of them during the first week: we enclose the young birds in a cardboard ring so that they don't head for corners, get crowded, smother and die. Occasionally, the cardboard falls down. Occasionally the birds get wet or pile up. However, as we do not cull when the birds come out of the hatchery, many would have died anyway for a variety of reasons. Debbie, my wife - even the children - help with the baby birds. Needless to say, we don't count or weigh each one. We count and weigh about five boxes with 300 chicks in each box. This gives us an average weight of each chick. We then fill other chick boxes until the hatcher is empty and weigh each box as we go along. At the end, we simply find the total weight of all the boxes and divide by the individual chick weight to get the number of chicks hatched. If we culled during this process, we could probably keep our mortality rate down to four per cent."

Claude has installed an automatic pig feeding system in his pens and finds it works well. For the first week the quail are fed turkey starter at 28 to 30 per cent protein depending on the season and for the remaining 5 1/2 weeks, they get chicken starter, non medicated 22-24 per cent. During the first week they get antibiotics in their water.

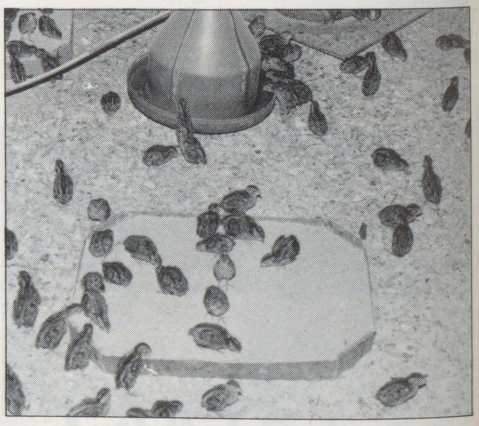
It is quite a sight to walk into one of the pens and find yourself confronted by 8,000 week-old quail. Claude told us that after the first three days, there is no risk of disease, but one has to be very careful about crowding. Some producers might aim for about 12 birds per square foot but he said that number could produce disease problems. He averages out at from 7 to 9 birds per square foot without worrying about the problem of disease. Pecking is avoided by lowering the lights and, during the last two weeks of growing, the light is reduced to less than 16 hours of light per day. "This keeps the birds immature sexually," Claude explained. "Instead of the female transforming the feed into eggs and the male wasting his energy defending his territory, they just grow bigger, and they have a full coat of feathers when they reach the slaughterhouse."

When the newly hatched birds get into the pen they stay there until they are shipped. The cardboard ring and the chick waterers are removed after a week or so. After the birds have been shipped, the pen is thoroughly cleaned and stays empty for about three weeks before being used again. Claude has eight pens on the Faisanbec farm, but right now he is only using five of them.

Claude calls serious growers those that sell more than 1,000 birds a week, and he says that there are only about 12 of them in Quebec right now. New markets need to be found to stimulate growth in the business. When Claude first started raising quail he went from shipping 4,000 a week to 8,000. " At that time most of the quail were sold to the United States but," Claude pointed out, "with the strengthening of the Canadian dollar about eight months ago, we lost our U.S. market as it was cheaper for the U.S. to buy quail from Asia. At the same time, another grower in the area who switched from guinea fowl to quail was selling at or below cost. He's no longer in the business but there were several of us stuck with big surpluses. I had to cut my shipments from 8,000 to 4,500 and I know it affected other breeders, too."

Claude said that he is getting 52 cents per live bird from the slaughterhouse - he is not paid by weight. "We're covering expenses and making a small profit but certainly new markets need to be found so that we can increase our production levels. Right now our quail go to supermarkets in the Montreal area, to Ontario and out west. I think we need to do more promotional work in the west for our product."

As well as still doing some nature interpretation - talks and classes for the Morgan Arboretum, Michelle has, since she married Claude in 1984, been working part-time as a nature interpreter at nearby Mont St-Gregoire where she is on the administrative committee of a non profit organization. She works at least a day a week, sometimes two or three. The organization has been able to buy a piece of land at Mont St-Gregoire; they have cleared some trails, among other things, and organized guided tours for school children. As Secretary for Faisanbec, Michelle Durand looks after the books and the finances, orders feed and other supplies, and, while Claude is away studying, is available for advice or consultation if Debbie needs her.



Week-old quail check out their feed and water supplies.

In a very short space of time, Debbie Ganter has come a long way from a youngster fresh out of Lachine High School who would have liked to become a veterinarian but trouble with those pesky math and chemistry subjects found her checking out programs at John Abbott College and the Diploma in Agriculture Program. Because she could learn to work with animals as a Dip, she chose Macdonald. Well liked by both staff and her fellow classmates, Debbie soon found herself totally involved in college life and activities. Her natural artistic abilities found her being asked to make up posters and other displays. One of her last assignments was to illustrate a new handbook for Laird Hall, the students' residence. She worked hard for the Livestock Club, was a timekeeper for the Woodsmen's Competitions, and also found time for studies. The key to her success were the 30 weeks of farm practice (stages).

"Students from a farm get new ideas during their stages," Debbie said. "My stages taught me everything. I started at Mac in '85 and my first stage was at Ferme St.Zotique, a large egg producing farm near Valleyfield. There were four barns which held between 65 to 70,000 white layers and I tried my hand at every job that needed to be done. That experience has certainly helped me fit into this operation. My other stage was in Rimouski on a 398 hectare dairy farm where Robert Annett, Dip'86. and his father milk about 56 cows. Robert's dad was very patient and showed me how to do a variety of jobs and operate a variety of machines - everything from seeding barley to combining."

Debbie learned how to plough, seed, fertilize, harrow, make hay and work with silage. She also learned that she particularly wanted to work with poultry but felt that she should first continue on in the degree program at Macdonald. She was taking make-up courses at the local John Abbott CEGEP but a bout of "mono" necessitated a lengthy rest. Recovered, the job offer from Claude Rivard last summer was quickly accepted. She lives on the farm in her own apartment and has weekends off. As long as the work is done, Debbie can pretty much schedule her day as she wishes.

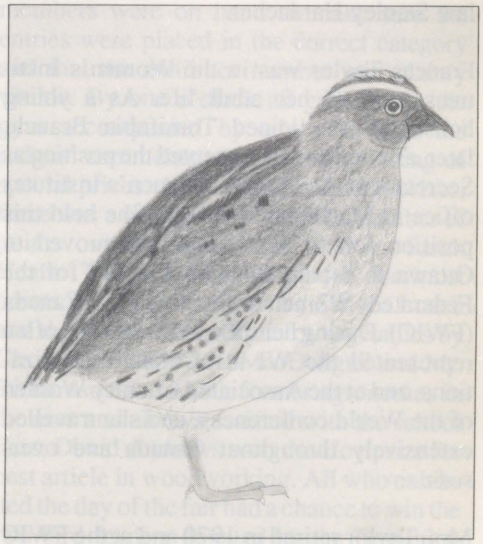
"My first job is to collect the eggs and from there on the schedule is never the same. Every day there is something different that must be done. I check all the pens a couple of times a day, clean the waterers, make sure they are not leaking, and raise them to the height of the birds. I make sure the feeder pipes are all in working order and tackle any other job that needs doing. I like working with the chicks best, especially the first day when they are put in their pen. They have to be checked often, especially during the first four hours so that they don't pile up."

Debbie and Gary, who met at Mac during Debbie's last year as a Dip, are also trying to help Claude and Michelle put the production records and other data on computer. Gary also helps with many of the other chores when he's able to get away from studying. Born in Montreal, Gary grew up on the south shore and, like Debbie, would like to have studied veterinary medicine. Again, the high marks required to get into veterinary school, made Gary choose the next best thing, General Agriculture at Macdonald College. Gary was on the Laird Hall House committee last year and is President of the committee this year. He worked at the Lods Research Centre last summer and also at the college farm during the Christmas holidays, but he's become interested in poultry and plans to take some poultry production courses in his final year.

What does the future hold? Claude Rivard is facing some tough decisions. Back when he was studying he earned money by working with terminally ill cancer patients at Maisonneuve-Rosemount Hospital. He also spent two summers working with handicapped people. He was stimulated by this type of contact with people. Since graduation he had been working full time at Faisanbec facing the ups and downs of raising first pheasants, then quail. He felt the need for change, for new and different challenges. He thought once again of those summer jobs and those people who touched his life. His decision to go into medicine - he would like to be a GP - means a long time hitting the books, it means many hours away from his family and his farm. It means Michelle having to manage the farm as well as raising a family and pursuing a career of her own. If the right buyer came along, Claude readily admits that he would be very tempted to sell. He is also quick to say that he loves the area and the people, and once the years of study and internship are over he would be very interested in setting up a practice there.

Naturally Debbie hopes she can keep on working at Faisanbec for Claude, though she understands the decisions he has to make. While Claude is the owner, Debbie definitely takes some of the pressure off him by taking a keen interest in the farm. Possibly a new owner would value her experience. Both she and Gary are interested in owning a similar enterprise of their own one day but, even with loans for college diploma and degree graduates, that reality has to be down the road a way. Meanwhile they both will be able to offer someone good managerial skills.

Debbie's conclusion to describing a working day - which we found out is never routine - is: "You're finished when you finish." Debbie may not know when she is going to finish each day, but we do know one thing for sure: she has chosen a career she enjoys, and she's good at it. She's off to a good start.



Drawing of a male quail by Debbie Ganter.

The Quebec Women's Institutes

Frances C. Brevoort Taylor
1893 -1989

The many friends of Frances C. Brevoort Taylor were sorry to hear of her death in her 96th year at the Sherbrooke Hospital on February 9, 1989.

She was born on June 29, 1893 at Magoon's Point, Quebec. The daughter of the late Henry E. Brevoort and his wife Frances Pearson, she attended Bugbee Business College and later worked at Stanstead College until her marriage to Harold G. Taylor of Fitch Bay on October 28, 1914. She helped operate their Pine Grove farm on the Boynton road until her husband's death 41 years ago. Music was always a part of their family life, and for many years Mrs. Taylor was organist of the Fitch Bay United Church, her husband was choir director, and her family formed part of the choir.

Mrs. Taylor is survived by three sons: Harold of Beebe, Robert and his wife Audrey of Elmwood, Ont., Russell and his wife Alice of Beebe, and one daughter Margaret Hardacher of Knowlton. She is also survived by 11 grandchildren, 20 great-grandchildren, and five great-great-grandchildren, as well as other relatives. She was predeceased by her daughter-in-law Glenna Taylor, and son-in-law Stanley Hardacher.

Frances Taylor was in the Women's Institutes most of her adult life. As a young housewife she joined Tomifobia Branch; later, as a widow, she accepted the position as Secretary at the Quebec Women's Institutes office at Macdonald College. She held this position for 10 years and then moved to Ottawa to set up a national office for the Federated Women's Institutes of Canada (FWIC). During her time in Ottawa she often represented the WI at affiliated organizations, and at the Associated Country Women of the World conferences, and she travelled extensively throughout Canada and overseas.

Mrs. Taylor retired in 1970 and at the FWIC convention in Winnipeg the President Mrs. Harvey presented her with FWIC Life membership pin and read the following citation: "It is most appropriate at this time that we honour one whose name through the years has become synonymous with that of the national office of the FWIC. Since October 1958, when the office was established in Ottawa, Mrs. Taylor, a member of the Quebec Women's Institutes, has been the gracious and efficient secretary, expending time and energy with no thought of herself, far beyond the call of duty. Her loyalty and devotion to FWIC and her dedication to the purpose and projects of the organization, especially the Northern Women's Institutes, has endeared her to the members across Canada, and earned for her the sincere admiration of a host of people outside our organization. It is our hope that she will continue her interest in the Women's Institutes. We know that her precept and example will guide and inspire us in the years to come. With this pin we express our gratitude and appreciation for her labours on our behalf and her outstanding contribution to the Federated Women's Institutes of Canada."

Mrs. Peggy Batley, Compton County President, cuts the county's 75th anniversary cake, which was made and decorated by Mrs. Goode of Sawyerville.

Mrs. Taylor moved back to the Eastern Townships where she remained as representative on the Northern Canada Committee for three additional years. She joined the Lennoxville Branch and acted as Secretary and, after moving to the Stevens Home in Rock Island, she became a member of the Stanstead North WI and was still a member when she died.

Mrs. Taylor's memorial and committal services were held at Wesley United Church in Beebe with the Rev. Keith Eddy officiating assisted by the Rev. Carl Gustafson of Lennoxville, a long-time friend and former minister in Fitch Bay. Viola Moranville was organist for the service and accompanied Della Goodsell, who sang "Nearer My God to Thee." Institute members, representing the province, the county, and the local area, attended the service in a body and formed an Honour Guard as the casket left the church.

Contributions in her memory may be made to the Frances Taylor Memorial Fund of the Quebec Women's Institutes, c/o Mrs. Doris Stevens, Treasurer, Box 671, Richmond, Que. J0B 2H0.

Muriel Duffy
Provincial Convener
Citizenship and Legislation

My husband and I ran the family farm together in South Durham until our son finished his education and came home to join his father. Mother is still called upon to fill in on occasion! We have three children: two married daughters and a son. We also have three grandchildren.

I am involved in several organizations: president of our local church group, member of the women's committee for the National Holstein Convention, president of the county WI, a director of the Townshippers' Association, and a member of the local Rebekahs.

I have been a WI member for 30 years. I served as secretary, president, convener of citizenship, agriculture, and education at the local level and agricultural convener at the county level.

At the present time I am knee-deep in research of family history as our municipality is publishing a book for its 125th anniversary in 1990. I guess you could say I don't have an overabundance of spare time, but when I do I love to read, work in my flower and vegetable garden or do handicrafts.

School Fair Gardens
by Gwen Parker
Lennoxville WI

On a rainy Monday at the end of August my husband and I spent a busy but interesting day. We judged the gardens of all the children who wanted to compete in the School Fair Garden Contest sponsored by the Sherbrooke County Women's Institutes.

In the spring children wishing to enter the gardening section of the fair were given an opportunity of selecting four kinds of seeds from a choice of six: carrots, beets, cucumbers, french marigolds, cosmos, and bachelor's buttons. Every garden was also given sunflower seeds for a special prize offered by *the Townships Sun.*

The date for the judging had been set the week before so there was nothing we could do about the wet day. We set out at 8:30 a.m equipped with rubber boots, a list of names and addresses, a map, and a clipboard for documenting our findings.

The first two houses found children still in bed, but they cheerfully donned their clothes and came out in the rain to proudly - or not so proudly - show us their efforts. In the course of the day we drove 224 kilometres and saw 50 gardens.

The participants ranged in age from kindergarten to Grade VI. Some were old hands at gardening, and for some it was their first experience. There were some picture book gardens and some which could have benefited from more care. In all cases it was a learning experience.

Sterling and I arrived home to tally up our points over a late supper prepared by our daughter Susan and Hazel Clarke at the cottage on Little Lake Magog.

We judged on a system of 50 points: 15 for plan, 15 for care, 10 for results, 5 for interest, and 5 for initiative. For plan we looked for a distinctly separate plot, either within the home garden or on its own with the taller plants placed so as not to overshadow the smaller ones and the vine crop, such as cucumbers, given plenty of space to run without interfering with the other produce.

A well weeded plot received high marks, but if vegetables and flowers had not been thinned to allow ample room for straight, sturdy growth, points would be lost.

Over 60 women from Pontiac County WI and members of the Provincial Executive joined the Fort Coulonge WI last October to help celebrate their 70th anniversary. Guest speakers included QWI President Pearle Yates, who spoke on the role WI has played in the lives of women since it was founded by Adelaide Hoodless, and Pontiac President Eileen Colton, who gave the history of the branch. Seen here with the anniversary cake are Lucy French and Ina Kilgour.

We could judge the interest by talking to the children. One little boy, a first-time gardener, was not home, and his mother said that he would be very disappointed as every time visitors came he would eagerly show them his garden. A couple of little girls could quickly name off the seeds they had and where they were growing. On the other hand, when somebody had to check with father to see which were her cucumbers, it raised questions in our minds.

For initiative we looked for something a little extra special, some ingenuity in the arrangement of the garden or making the greatest use of a small space. Sean Stuart, winner of first place, outlined the corners of his plot with his bachelor's buttons. Christine Simard, who placed second, had a picket fence around her garden with the sunflowers for a backdrop. The Beattie girls, Nancy and Heather, had their garden beds in geometric shapes, while the Millards, Suzanne and Jonathan, put chicken wire up for the cucumbers to climb on as they were short of garden space. Jonathan and Heather tied for third place.

The day of the fair, exhibitors started arriving early, full of excitement, with mothers, fathers, and grandparents, big sisters or brothers helping to carry in the exhibits. WI members were on hand to make sure the entries were placed in the correct category and that the exhibitor number was plainly visible. By one o'clock all gathered in the gym accompanied by adults to hear the judges' comments and see the awarding of special prizes. As well as the garden prizes, there was a trophy for the highest number of points overall, which was won by Sarah Heath. The MacDougall plaque for most points in flowers was won by Shanna Loach and the Richardson plaque for vegetables by Christine Simard. Mr. MacDougall and Mr. Richardson were both former agronomes in the area and always assisted with the school fairs. David Andrews won the Hoy prize for best article in woodworking. All who exhibited the day of the fair had a chance to win the two bird feeders donated by the Dominion Seed House.

Safety First

by Elsie Prevost

Lawn Mowers can Maim

Each year mishaps and accidents occur through the improper use of lawn mowers. Injuries are also caused by objects thrown by them. To avoid such accidents, take these safety measures.

Before you cut your lawn thoroughly inspect the surface area and remove all stones, sticks, wire, bones, and other foreign objects.

When you are cutting grass on a hill always mow across the face of the slope, never up and down. This guards against the possibility of accidentally pulling the mower down over your foot.

Never leave a mower unattended. Make sure to turn the motor off and unplug the power cord whenever you leave the equipment; before cleaning the mower housing (frame), and before making repairs or changing the grass bag. Check out all nuts, bolts, and screws at frequent intervals to make sure they are properly tightened. Check the collector bag frequently and replace worn bags.

Avoid getting water in the motor and electrical connections. Never wash an electric mower while it is connected to the power supply and do not operate it when the grass is wet.

Young children should be kept away from a lawn mower and should not be allowed to use one until they are old enough to do so safely. If you have a tractor mower, do not sit a child on your lap.

Jogging and walking are a good way to unwind after a hectic day. If you should do either after dark, be sure drivers can see you - wear a QWI reflector or two! Have a safe summer!

With the Branches:

ARGENTEUIL Dalesville WI celebrated its 30th Anniversary at a lunch at Colonial Church Hall with Anniversary cake and picture-taking and to view their Keepsake Album of memories of 30 years. Poetry was written "Tribute to Dalesville-Louisa WI 30th Anniversary, 1958-1988," sung to tune of "Darling I am Growing Old." Donated to Heart Fund in memory of Charter member, Edith Coulsen. **Frontier** Mrs. Ethel McGibbon spoke of her visits and experiences in other countries belonging to the ACWW; welcomes seven guests to their January meeting; Miss Filion from CLSC spoke on services to the Community; changed title of "sick and visiting" to "sunshine and cheer." **Arundel** Motto: "The strength of the home is the strength of the nation", held a quiz on health, food and medicine with questions taken from Trivial Pursuit. **Pioneer** invited Secretary Treasurer of St. Andrews Municipal Council to talk on tax bills and procedures for applying for building permits, evaluation, etc; Mrs. Elma Riley gave talk and demonstration of "Flextone" exercises (very suitable for third age group- can be done sitting). **Brownsburg** presented an Abbie Pritchard Throw to Ruth Mason in Lachute Residence; had guest speaker Nancy Welburn, who acts on Board of Directors of Rosemere Home, which houses 15 children from broken homes and is one of two such homes in Quebec; heard a brief biography of Mrs. Jenne McGinnis, the new FWIC president. **Jerusalem-Bethany** 25 members attended November meeting; entertained Brownsburg and Pioneer branches in December. **Grenville** members went to the Manoir at St. Philippe when Father Woodbury and choir from Pointe au Chene entertained the patients. During intermission WI ladies distributed candy, apples, and cookies.

BONAVENTURE Matapedia members are planning their 35th Anniversary. A special issue of the "BONAVENTURE ECHO' was published to mark this County's 65th Anniversary. Bravo! and Congratulations! Congratulations also to this County's WI Publicity Convener, Alice Duthie (and her husband) who became parents of a baby boy, January 15th!

BROME Austin donated to Adelaide Hoodless Fund in memory of Lillian Pike; annual WI Bursary was awarded to Heather Ross, Magog; gave monetary help to family who lost barn and livestock in a fire. **Abercorn** 55 wore corsages made for ladies at Sutton Foyer for St. Valentine's Day; donation to Cemetery Fund in memory of Francis Haggerty. **South Bolton** a drawing on a painting made by a member, Janina Grygar helped funds of this Branch.

CHATEAUGUAY-HUNTINGDON Howick collected approximately three tons of glass in their glass drive and each person who contributed received a biodegradable garbage bag; Joan Ness spoke of her trip with her husband to Russia, Finland, and Sweden; made four dozen finger puppets given to doctors and nurses in hospital emergency room for the young patients; three Life Memberships presented at December meeting. **Franklin Centre** Jean-Guy Hudon, MP, spoke on Free Trade; June Orr spoke on how children with celiac do not outgrow it and should not eat foods containing gluten; **Aubrey Riverfield** held a very informative World Food Day presentation by Jean Cogswell; also a presentation of technique of fold art by Mildred Chisholm. All branches are active in helping with community projects, recycling, and have a keen awareness of their environment. **Dewittville** WI operates the skating rink; guest speaker, Connie McClintock spoke of her 4 1/2 year's teaching experience in northern Quebec to grade V Inuit children.

COMPTON Sawyerville local popular singer, Debbie Drummond, showed slides and told how records are made, she rendered her latest hit song "Star Shine" Motto: A person's feet should be planted in the country but the eyes should survey the world. **East**

Clifton placed a wreath on Cenotaph, members wore poppies and program was to tell of the sewing and knitting done for Red Cross in the 40s.

GASPE branches donated over 100 articles from the Wool Gathering Project which were taken to Ross Sanitarium; donated colouring books, toys and money for hospital; held a casserole supper for all citizens of the parish who were 80 years and over, and delivered to those unable to attend; a Hallowe'en party given for children; donated to Heart Fund in memory of two members and helped finance a member to Newfoundland.

MEGANTIC Inverness welcomed six guests at November meeting; motto: perhaps the one comfort in all the frightful news one reads is that it's still news. **Kinnear's Mills** donated towards the hospital treatment and needs of a baby; collected for Wool Gathering; Motto: "What Canada makes makes Canada, if we buy what Canada makes." Eight Valcartier members shared a pleasant time as guests of Megantic County when their 70th Anniversary was celebrated. Bingo was played until a Chicken Pie Luncheon was served followed with an arranging of chairs to resemble a Church, and then a hilarious Mock Wedding took place and was enjoyed.

MISSISQUOI Cowansville Motto: A healthy mind conquers a sick body; donation made to Bursary Fund on occasion of a member's 62nd wedding anniversary; Garcia Comeau of CLSC spoke on concerns of the aged entering rest homes or having home care. **Dunham** a couple of members braved wearing a summer dress as roll call on one of the coldest nights of the winter; apples were given to L'Horizon pour Elle, Home for Battered Women to commemorate World Food Day; members of the executive accepted an invitation to a Municipal Council meeting to answer questions as to the present and future plans and projects of the WI; a "travelling basket" is circulating among members and a rummage sale is in the making to benefit the ACWW and QWI. **Fordyce** Motto: Humanity is an ocean - if a few drops of the ocean are dirty, the ocean itself does not become dirty; roll calls: give the price of a loaf of bread for ACWW; give a name of a nutritious food beginning with the first letter of your name. **Stanbridge East** Motto: If you plant good citizenship in the home, it will bloom in the nation; roll call, tell of an incident when you felt love was shown you; donated food and paper products to home for battered women; tea money to Extension Fund. Contests held on recognizing weeds and on well-known Canadians; subscribed to Protect Yourself magazine.

MONTCALM Rawdon welcomed four new members in '88; held a "free admission" Fun Night when they hosted a Talent Night and entertained a full house; courtesy meals are delivered twice a week to 20 people who live alone or are shut in; work has been done on restoring the old Brethern Cemetery; Snowy Owl reflectors that were not sold were distributed to Grades 5 and 6 students of Rawdon Elementary school; Bursary and scholarships were given to Douglas Asbil and Kelly O'Neil as well as $200 to Rawdon Elementary school for computer program materials; Mrs. Roy spoke about a program to assist Senior Citizens with house and yard work so they can remain in their own homes; Lynn Scott discussed a program of therapeutic and preventative activities for people over 65, alternating weeks with French and English. Members are working as volunteers on both these programs; a main fund-raiser and much fun was enjoyed with a fashion show, when the men modelled the ladies clothes.

PONTIAC Wyman Evelyn Duff, Provincial Agriculture Convener reported on her trip to Newfoundland; enjoyed a trip to the new Art Gallery in Ottawa to view Canadian Art. **Clarendon** welcomed the County President who spoke of her trip to FWIC in Newfoundland. **Beechgrove** presented Abbie Pritchard Throw to a member no longer able to attend (give the name of person), Roll call: my favorite section of the newspaper; Motto: if you live in a small town and don't know what's going on, nothing is!

QUEBEC Valcartier held their Annual Labour Day Picnic and Chicken BBQ; local merchants were canvassed for prizes and used the opportunity to explain what and who the WI is; Motto: it is not difficult to know what to say, but one must know how to say it; held a word game which came from England and proved the word meanings were quite different; CBC Radio publicized their Wool Gathering project.

RICHMOND Cleveland held a Memorial Service and served lunch for the family of a deceased member; donated to CHU Hospital in memory of Dolly Sloane; **Richmond Young Women** held a contest matching capital cities to the countries; donated to Save the Grove Fund, and other numerous donations; **Spooner Pond** had Mr. Glouture tell of his trip to Venezuela; the new Publicity Convener seems to be applying herself to her "title" by helping to display a booth for Farm Day and worked on local July 1st float and even used the local Citoyen to put a Seasonal Greeting advertisement to encourage keeping our one English page. Good show!

ROUVILLE (Abbotsford) hostessed a pot luck supper when members' husbands and visitors from away enjoyed being together again; welcomed Pearle Yates, County President at a meeting; roll call to give a current event.

SHEFFORD Ayer's Cliff members are making wool squares to assemble for lap throws for people in need of them; motto: the hen that lays a golden egg has the right to cackle. **Hatley** socks and mittens were knit and donated to North Hatley School. **Hatley Centre** Roll call: Name a person remembered because of World War I or II and bring a gift for a veteran and wear a poppy. Guest speaker on sexually abused children; members support Piggery Theatre in North Hatley by helping to sell tickets; members learn about hydrophonics (growing plants without the use of soil). **Stanstead North** served a free evening dinner to the public which was advertised on the radio and in the newspaper.

Barbara Harvey
QWI Publicity

Newsmakers

On Campus

Changes in DHAS

In an interview in early April Marcel J. Couture, Associate Dean, Community Relations explained the recent changes in DHAS and also said that the welcome mat is out for the Ayrshire Breeders Association of Canada.

"As you may recall the Dairy Herd Analysis Service (DHAS) was started at Macdonald College in 1966 by just a few people. Interestingly enough, I was the first DHAS supervisor. When Dr. John Moxley created DHAS he hoped that one day the users of the service - the Quebec farmers - would participate in the management of the program. In 1980 there was a milk recording conference held in Montreal, and at the time a decision was made across Canada that milk recording would become privatized. Private companies were formed in all provinces except Quebec for one good reason: milk recording in Quebec was doing so well there was no reason to change it. Perhaps the philosophy was: If it isn't broken, don't fix it!

"What started as a research project here at Macdonald has grown over the years to over 8,000 herds and over 200 employees. With the demise of ROP at the federal level, we were faced with a situation where something had to be done. There are about 900 farmers who will leave ROP and will become members of DHAS. Milk recording has become big business and we felt that the time had come for change. On December 22, 1988, after some long and, at times, difficult negotiations and discussions, Claude Rivard, president of the Fédération des producteurs de lait du Québec, Ghislain Leblond, Deputy Minister of the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ), and Dr. Roger Buckland, Vice-Principal, Macdonald College, signed an agreement to secure the future of DHAS or, as the corporation is now called, PATLQ Inc.

"Under the agreement the milk testing laboratories, computing centre, and all other facilities will remain at Macdonald College for as long as McGill wishes. Our employees will be offered a package to transfer to the new corporation with conditions identical or better than at present. We have set up a board to operate DHAS during the transition period. Board members include: Guy Jacob, Deputy Minister of Agriculture, Lucien Biron, General Manager and Vice-President of the Société Québécoise d'Initiatives Agro-Alimentaires (SOQUIA), and Chairman of the new Board, Fernand Laliberte, CIAQ, Jacques Peloquin, from the Comite conjoint des races laitieres du Québec, Marcel Bourbeau and Bertrand Lapointe, from the Federation des producteurs de lait du Québec, Wendell Joyce, the Macdonald College Farm Director, Dr. Elliot Block, from the Department of Animal Science, and myself as Associate Dean. With the integration of ROP into DHAS, we felt it was important that the federal government be represented and, Agriculture Canada will have a non voting representative on the board.

"The board has already met several times and a number of steps have been taken. The corporation has hired an accounting firm which is preparing some financial statements in order to start setting up the structure of the new corporation, and lawyers on both sides are working on leases for facilities and equipment, and a service contract between the new corporation and McGill. As DHAS must continue to function during the transition period, Macdonald College continues to be responsible for the day to day operations - with advice from the board. We hope the new corporation will be set up and the contract signed by May 1 (before this appears in print) and that ROP will be integrated during the summer and fall months.

"The various groups concerned have agreed that a new building will be constructed or an existing one renovated to meet the needs for an expanded service. This building will be here at Macdonald College and the facilities will be leased on a cost basis to the corporation."

"In due time McGill and SOQUIA will give up equally some of their shares in the corporation. Eventually we would like to have both the Ministry and McGill take a minority position on the board, and the future of DHAS would then rest in the hands of the producers themselves.

"DHAS is possibly the best milk recording service in the world. We are adament that it remains at Macdonald College, that we have a voice in it, and that we continue to have access to data. This is extremely important to us. We have built the program, and we want it to continue to be the best in the world. That is why we want a very gradual transition period - we want to continue to be involved.

Ayrshire Breeders Coming to Macdonald

"One of the original building on the campus, Glenaladale, a former residence and faculty club for Macdonald staff, will soon be getting some new tenants. When the John Abbott CEGEP arrived on campus and shared facilities with Macdonald, Glenaladale was one of the buildings used by John Abbott for a number of years. It has since been vacant.

"We already have such organizations as the Quebec Farmers' Association, the Quebec Young Farmers' Federation, the Quebec Women's Institutes, and the Association of Quebec Rural English Media on our campus, and we are excited that the Ayrshire Breeders have decided to join us as well.

"When I was Director of Extension in 1984 I spent a considerable amount of time travelling across the province speaking to various breed associations, farm organizations, and other groups telling them that we wanted to work closely with them. As a result of these early discussions, more recent meetings were held with the Ayrshire Breeders, and we made a tentative agreement in early December which had to be approved by their board in March of this year. The vote was 78 per cent for and 22 per cent against and there was support from all across Canada. The Ayrshire Breeders had a building in Ottawa that they wanted to sell and we are pleased they chose to come to Macdonald.

Macdonald Star Papoose and Caroline Beaulieu

A Winning Team

Sire: Hanover Hill Starbuck; Dam: Macdonald Tempo Papoose A; Born: September 3, 1987 - Macdonald Star Papoose, according to Caroline's father Gordie Beaulieu, Herdsman at the College Farm, was an eye catcher from birth. She showed width, chest, and heart, a very deep rib, a long and wide rump - all this on an animal that stood tall.

Her debut in the showring was with Valerie Armstrong in the Novice Class at the Macdonald College Livestock Show. Valerie was Champion Novice Showman with Star Papoose. Her first 4-H show was with Caroline Beaulieu at Lachute where, despite a minor injury, she placed second in her class and went on to Reserve Champion Calf. From there to the fourth Calf Rally in Ormstown where she was first in her class and to Papineau where she was shown by one of Caroline's friends and came fourth. Next it was Huntingdon, where she came seventh and then to the local Pont Chateau Fair on Labor Day Weekend. In the fourth show the calf came second in her class; in the open show she came first and was Reserve Junior Champion. Her next show was at Kemptville where, because of leg problems, she did not do as well.

Star Papoose was chosen to go with the Quebec Exhibit to the World Dairy Show in Madison, USA. She came sixth out of 39. At the Royal in Toronto in November she was entered in the Contact Hays Classic with Caroline Beaulieu. The Hays is a National 4-H competition with representatives from every province. Star Papoose came in fifth out of 94 and Caroline 13 out of 113 in showmanship.

At the Sale of Stars later in the week Star Papoose was sold to Global Holstein Associates, Avon, New York. The following day she took part in the Royal open class and came in seventh out of 48.

Star Papoose is now in New York State where, as Caroline says, "She is making herself a legend." Caroline was sad to see her go but as she said, "that's what happens when you have a 'Star'"

Off Campus

The Air Canada Hearts of Gold Award was a nation-wide effort by community newspapers and Air Canada to recognize the many individuals who have made a contribution benefiting others within a community or an organization. Nominations for the award were sent in by the public. In the Chateauguay Valley region alone, we know through The Gleaner of three winners who were Macdonald graduates: WILLA HOOKER, DipEd'30, THERESA GREENE, BSc(Agr)'86, and MARKUS MULLER,Dip 88.

WILLIAM DURANT, BSc(Agr)'53, Head of the Engineering Section of the N.B. Department of Agriculture was presented with a 35 years of Service Award.

MURRAY MCEWEN, BSc(Agr)'53 has been appointed Chairman of Amstar Sugar Corporation, New York, of the Western Sugar Company, Denver, and of Redpath Sugars, Toronto. Murray McEwen is a Director and a Vice President of Redpath Industries Limited in charge of its Sugar Division. As well as being a Director of Tate & Lyle, Inc. and the A.E. Staley Manufacturing Co. of Decatur, Illinois, he is also Chairman of the World Sugar Research Organization, the Canadian Sugar Institute, and a Trustee of the National Institute of Nutrition.

DR. JOSEPH MACNEIL, BSc(Agr)'55, professor of food science at the Pennsylvania State University, was awarded a Fulbright grant to Lisbon, Portugal, for the spring semester. He is teaching at the College of Biotechnology, a college of the Catholic University of Portugal. His students are the first graduating class in a new five-year program in food engineering and food sciences.

ALLISTER MARSHALL, BSc(Agr)'57, a senior loan officer with the N.S. Farm Land Board and Chairman of the Board of Directors of Scotian Gold, was made an honourary member of the N.S. Fruit Growers' Association at their annual meeting in December.

NORMAN SHEIDOW, BSc(Agr)'60, a tobacco specialist with the Ontario Ministry of Agriculture & Food's plant industry branch, has joined the Ministry's Transition Crop Team as crops advisor.

GUY JACOB, BSc(Agr)'63, was recently appointed Deputy Minister of the Ministère de l'Agriculture, des Pêcheries, et de l'Alimentation du Quebec (MAPAQ).

JIM NEWSON, BSc(Agr)'69, was appointed Agricultural Representative for the Charlottetown District Office at the P.E.I. Department of Agriculture.

DR. EUGENE POMMIER, BSc(Agr)'67, was awarded a fellowship in emergency medicine by the Royal College of Physicans and Surgeons of Canada. He is at the Sudbury General Hospital.

DAVID FAULKNER, BSc(Agr)'68, has been appointed Director of Agricultural Development for Prince Edward Island, with Agriculture Canada's Agricultural Development Branch.

JIM NEWSON, BSc(Agr)'69, has been appointed Agricultural Representative for the Charlottetown District Office of the P.E.I. Department of Agriculture. He has been acting in the Ag Rep position for nearly two years and prior to that was the Charlottetown District Dairy Specialist.

JOHN SECORD, BSc(Agr)'69 has taken a position with OSECO (Ontario Seed) in Brampton, Ont.

DR. TED SEFTON, MSc(Agr)'69, has been appointed Alltech's Sales and General Manager for Ontario. Prior to his position with Alltech, Ted Sefton was General Manager for Cuddy Chicks.

JOHN HARVIE, BSc(Agr)'76, has returned from a two-year assignment with the St. Lucia Federation of Agricultural Co-operatives. He is resuming his former position as manager of the Farm Supply Department at Scotsburn Co-op, Scotsburn, N.S.

JAMES STEEVES, BSc(Agr)'76, is now working as a Fruit and Vegetable Destination Markets Inspector in Halifax, N.S.

HUGH MAYNARD, Dip'78, Managing Editor of the Quebec Farmers' Advocate won three national awards at the Canadian Farm Writers' Federation annual meeting last December. In the press release category, he received the gold certificate for the Alice Switzer Award, sponsored by the United Farmers of Alberta Co-op Ltd.; in the monthly press reporting category, he received the silver certificate for the Jack Cram Award, sponsored by the Canadian Seed Growers Association, and he was also named the alternate winner for the George Atkins Professional Development Grant sponsored by BASF Canada Inc.

BARRY RUSSELL, BSc(Agr)'78, has left the N.B.Department of Agriculture to become manager of the Atlantic Dairy Livestock Improvement Corporation.

DAVID HALL, Dip'80, and SANDRA SMITH, BSc(Agr)'87, were married on November 26, 1988. Sandra is a part-time farmer with Dave and a Technical Services Rep for Purina in the Richmond area.

JOHN MAYO, BSc(AgrEng)'82, his wife Suzanne, and KARIM CHIRARA, BSc(AgrEng)'85, MSc(Agr)'88, have gone to Mansoura, Eqypt, to work on the Canadian-aided Integrated Soil and Water Improvement Project.

NANCY L. CROWE, BSc(Agr)'81, MSc(Agr)'84, is in Brooks, Alberta, working as a Food Scientist with Alberta Agriculture. Her position involves both research and extension in the areas of processing horticultural crops.

CHRISTINE GORMAN, BSc(Agr)'81, and DANIEL MACKINNON, BSc(Agr)'77, were married last Thanksgiving weekend in Montague, P.E.I. They will be living on the MacKinnon home farm.

CLAUDE CARDIN, BSc(Agr)'82, who was Monsanto Canada area supervisor for eastern Ontario, Quebec, and the Maritimes, is now District Manager for eastern Canada.

SUSAN MACKINNON, BSc(Agr)'82, has been appointed the Vegetable and Tobacco Specialist for the P.E.I. Department of Agriculture. Prior to this Susan worked with the Maritime Tobacco Research Program - a project sponsored jointly by the Maritime provinces, Agriculture Canada, and tobacco companies. She has also worked for the Cole Crop Growers' Co-op assessing methods of growing transplants.

JAMES PEEL, Dip'82, is now the Assistant Area Manager for Eastern Breeders Inc. in Kemptville, Ont.

DR. DONALD MCQUEEN SHAVER, DSc'83, was inducted into the World Poultry Science Association's Hall of Fame at ceremonies in Japan.

SANDRA MACKINNON,BSc(Agr)'84 and Peter Boswall were married in May, 1988. Sandra is a 4-H Representative for P.E.I.

JEAN-MARC MONTPETIT, BSc(Agr)'84, has been appointed Area Agronomist for Pioneer Hi-Bred Limited, serving the Ottawa Valley, Quebec, and the Maritimes. He is currently studying for a MSc in Plant Science.

DALE BURNS, BSc(Agr)'86, sends news from down in New Jersey where he is the Assistant Plant Breeder in the Oilseeds Section of DNA Plant Technology Corporation in Cinnaminson. DNAP, due to a recent merger with a Californian molecular biology company, is the biggest agricultural biotechnology company in the U.S. He says it's slightly intimidating being involved with these really high tech people, but he remembers the fact that no matter what they produce, it is still up to the breeders to produce the final variety. Dale finished his two field sessions at the University of Manitoba in Winnipeg, thus completing his MSc research. However, before he had time to write up his thesis, he received the job offer in New Jersey. He was working on it during evenings and weekends and the first copy was being reviewed by his supervisor. He hoped to be able to be back in Manitoba to defend it last February or March.

Some 40 former Family Herald staff members, family, and friends gathered in mid August for a weekend reunion to mark the occasion of the 20th anniversary of the demise of Canada's national farm magazine The Family Herald. Saturday's events were held at H. Gordon Green's farm in Ormstown. Those with a Macdonald connection included, l to r, JIM FEENY, a former student and member of Extension before moving to Winnipeg where he is now a Producer for CBC television's Country Canada. Jim and a TV crew were filming the day's events. DOUGLAS WATERSTON, BSc(Agr)'45, was in The Family Herald's farm department, editor of the Farmer's Advocate, and Public Relations Officer for the University of Guelph until his recent retirement. TRINA (VINEBERG) BERENSON, BSc(HEc)'52, was Food Editor for The Family Herald for about 10 years. She is still busy developing and testing recipes for publication. DONALD W. MACDONALD, Dip'35, was also a member of the farm department, who, upon the magazine's folding, joined Agriculture Canada's Communications Branch. Don is now retired. H. GORDON GREEN, magazine editor for The Family Herald, as well as farmer, writer, teacher, and radio and television personality, was also editor of The Macdonald Journal for a time. HUGH MAYNARD, Dip'78, Managing Editor of the Quebec Farmers'Advocate, covered the event for CBC Radio Noon. HAZEL CLARKE, editorial assistant and Voice of the Farm Editor at The Family Herald is the present editor of the Journal, and co-ordinated the Reunion.

JENNIFER GARAFAT, BSc(Agr) '86, and MICHEL DUQUETTE, BSc(Agr)'85, were married last August and are living in Trois Rivières where Michel is a credit officer with Quebec Farm Credit.

FRANCOIS BLAIN, MSc(Agr)'87, is working toward his PhD at the University of Guelph.

ROBERT B. ALLEN, BSc(Agr)'88, has joined the staff of the Canadian Turkey Marketing Agency as a Market Analyst.

SYLVIE GAGNIER, BSc(Agr)'88, has accepted a position with Menard Piggeries in l'Ange Gardien.

MARION ZARKADAS, MSc'88, a former member of the staff of the School of Dietetics and Human Nutrition, is now in Ottawa with Consumer and Corporate Affairs as their Food Specialist.

Deceased

C. BURTON DALTON, BSA'31, of Ottawa, Ont., in 1987.

EDWARD J.R. (TED) BOOTH, BSc(Agr)'51, on April 19, 1988. At the time of his death Dr. Booth was an Emeritus Professor at the University of Connecticut. He had been a member of the Department of Economics since 1964. He had also taught at

the Oklahoma State University and spent a year as a distinguished foreign visitor at the University of Cambridge. Born in England, he came to Canada after World War II and managed a family farm near Montreal.

Dr. M. A. "Vic" Amer
(1900 -1989)

A Tribute by Dr. C. Garland, Director, Cancer Center Epidemiology Program, University of California, San Diego

Dr. M.A. "Vic" Amer, Senior Vice-President, Science and Technology, of the Dairy Bureau of Canada, died after a short, tragic illness on February 1, 1989. He was Chairman of the Dairy Nutrition Information Center of the Dairy Bureau and Auxiliary Professor in the Department of Food Science and Agricultural Chemistry at Macdonald College. He is survived by his daughters Rebecca and Laura, his wife Donna and their son Adam. Donna, PhD'87, is a former Faculty Lecturer in the School of Dietetics and Human Nutrition.

To his colleagues Vic Amer was a man of great ideas. He opposed orthodoxy and embraced innovation. Known as the defender of the natural qualities in foods, he once wrote in a scholarly article concerning a controversial food stabilizer: "There is no reason to use a non nutritive stabilizer when a nutritional product of higher value can perform the same function or even better." He persisted in his belief in natural, unadulterated food throughout his distinguished career.

He was recognized early for his work on yogurt, which showed that the two strains of natural beneficial bacteria used to make yogurt liberated amino acids in milk protein vastly better than any artificial means then in use. The natural process, he found, resulted in a more easily digestible food, helpful especially to the ill and elderly. He was at the time of his death an internationally recognized expert on yogurt and its uses to prevent diseases.
Vice Amer was born in Egypt in 1944. He studied food technology at the Nuess School of Food and Agriculture in West Germany before receiving the BSc degree in 1964 and postgraduate diploma in food and agricultural studies in 1966 at Cairo University. Soon after leaving Cairo, he completed the MSc degree in food science and technology at the University of Guelph in 1969 and the PhD in nutrition-lipid biochemistry at Macdonald College in 1971.

While living in Egypt, he was impressed by the rarity of intestinal infections in native Egyptians as compared to tourists and maintained a belief that the natives' intake of natural yogurt was protective. He once digressed in a scholarly article to paternally ask "those inclined to spoil children to buy them fruit yogurt."

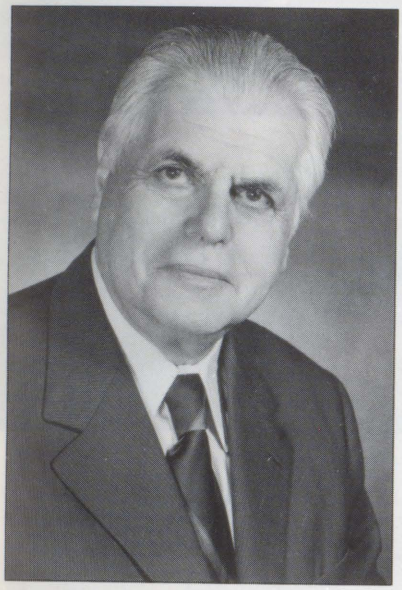
He had a persistent interest in the scientific and medical aspects of fats. In 1973 he and his colleagues produced a new milk with reduced levels of saturated fats. He also did significant work on new types of foods, such as spreads combining butter and vegetable oils. According to colleague Dr. Inteaz Alli of Macdonald College, he was currently discovering new uses of fractions of milk fats and working with a student from the People's Republic of China to increase the calcium in pasta as an inexpensive calcium-rich food for the world's poor. His innovative work will play an important role in the development of new foods in the future.
One of his most distinguished achievements was the development of an unparalleled program of medical and technological research for the Dairy Bureau of Canada, a non profit organization of the nation's dairy farmers. He initiated the program in the early 1980s and carried it through to its currently world-renowned level of success and productivity. The research program, which will carry on, is the most important program of research on the preventive medical aspects of dairy foods in the world.

His research team included 43 scientists from Canada and other nations and is studying the health benefits from milk-related foods, from the role of calcium in the prevention of intestinal cancer and reduction of high blood pressure to the effect of yogurt on blood cholesterol to the role of lipids and vitamins A and D in human health. Studies designed to develop new types of foods from milk are also included.

Amer directed the program with a strong sense of purpose and inspired all who worked with him. His impact on the medical and nutritonal literature relating to milk has been strong; a quantum shift has occurred in the literature of preventive medicine of cancer and cardiovascular diseases. The program brought calcium to the forefront of research in preventive medicine and advances stimulated by it will probably be considered the most important progress in preventive medicine and nutritional sciences through the 1990s.

In 1986 Vic Amer was awarded "Knight of Merit" by the Order of Saint John of Jerusalem Knights of Malta in recognition of his achievements as a scientist and director of his research program.

Lewis A. Fischer
(1900 - 1989)



A Tribute by Dr. Garth Coffin, Chairman of the Department of Agricultural Engineering and Dr. W. E. Sackston, Emeritus Professor, Department of Plant Science.

The many friends of Dr. Lewis Fischer were saddened by his sudden death on February 1, 1989.

Lewis Fischer began his professional career with a degree in law from the University of Budapest in his native Hungary in 1923. He immediately went on to earn a doctorate in agricultural economics at the University of Halle in Germany in 1925. He then returned to Hungary to manage his estate in Penzeskut for the next 24 years.

The Fischer family were landed gentry, with large land holdings, and social contacts with the nobility. Lewis in his youth enthusiastically hunted big game on the family estate and, on occasion, as a guest of members of the royal family. One of his most recent interests, in the possibility of growing Jerusalem artichokes in Quebec as a source of industrial alcohol, went back to the advice he gave his father on returning from Halle with his shiny new agricultural degree, to try Jerusalem artichokes as a cash crop. They never got around to harvesting and selling the crop. It turned out that the wild boars which roamed in the Fischer forests liked Jerusalem artichoke better than any purchaser and rooted them up enthusiastically. Never one to miss a good thing, Lewis thereafter made a point of scattering plots of the artichokes strategically around the estate and harvesting the boar that came to feed on them. Some of his other ventures were more successful: growing grass and clover seeds on contract kept their farm solvent during the depression years when traditional crops were worthless.

The Nazi occupation of Hungary brought problems a degree in agricultural economics did not help to solve. The Fischers survived, but Lewis was jailed for awhile. When the Soviet army drove the Germans out, the Fischers were dispossessed, but again managed to survive. Arrests and harrassment in the postwar years convinved them that they had to leave. Without telling their teenage son and daughter what was happening, Lewis and Magda and their children made their way by night, with the help of friends and of judicious bribes, to the Austrian border. There professional smugglers led them across through the barbed wire with the clothes they were wearing as their sole possessions. The family emigrated to Canada in 1957 and have been an integral part of the Macdonald community since 1959.

Dr. Fischer had broad research interests and published numerous works on trade and development. In 1968, together with G.I. Trant and D.L. MacFarlane, he published a book on a topic of current interest, namely "Trade Liberalization and Canadian Agriculture. He also studied many aspects of Quebec agriculture, was keenly interested in the impact of the agricultural policy of the European Community and was internationally recognized for his work on agriculture in Eastern Europe, particularly that of his native Hungary. His last piece of work in this field on "privatization and the second economy in Hungarian Agriculture" was published late in 1988 in the journal Osteuropa.
Dr. Fischer's career in the Department of Agricultural Economics at Macdonald College spanned nearly three decades, covering almost half the 63-year history of the department. As an anniversary project in 1986, Dr. Fischer recorded his knowledge of the evolution of the department in a report entitled "Sixty Years of Agricultural Economics at Macdonald College." He was named to the Honour Roll of the Canadian Agricultural Economics and Farm Management Society that same year.

On a personal level, Dr. Fischer made many lasting friendships. He was a true gentleman. He brought an uncommon touch of class to his surroundings and elevated our appreciation of the finer qualities of mankind. He had a genuine interest in people and in the problems of agriculture. These were strong motivating forces for his contribution through research, publication, and other forms of communication to the very end of his days with us. Dr. Fischer will be remembered for these many and varied contributions to life at Macdonald College, and particularly for his interest in students with whom he shared his knowledge through seminars, lectures, and counselling sessions. The Department of Agricultural Economics is grateful for this long and fruitful career. We share the sense of loss with Mrs. Fischer and her family.

In memory of Dr. Fischer the Department of Agricultural Economics has decided to create the Lewis Fischer Memorial Fund. Income from the fund will be used to support undergraduate student awards on an annual basis. Please make cheques payable to McGill University Lewis Fischer Memorial Fund and forward them to the Department of Agricultural Economics (Attention: Professor Kisan Gunjal) or to Gregory Weil, Faculty Development Officer. Receipts will be issued for gifts of $10 or more.

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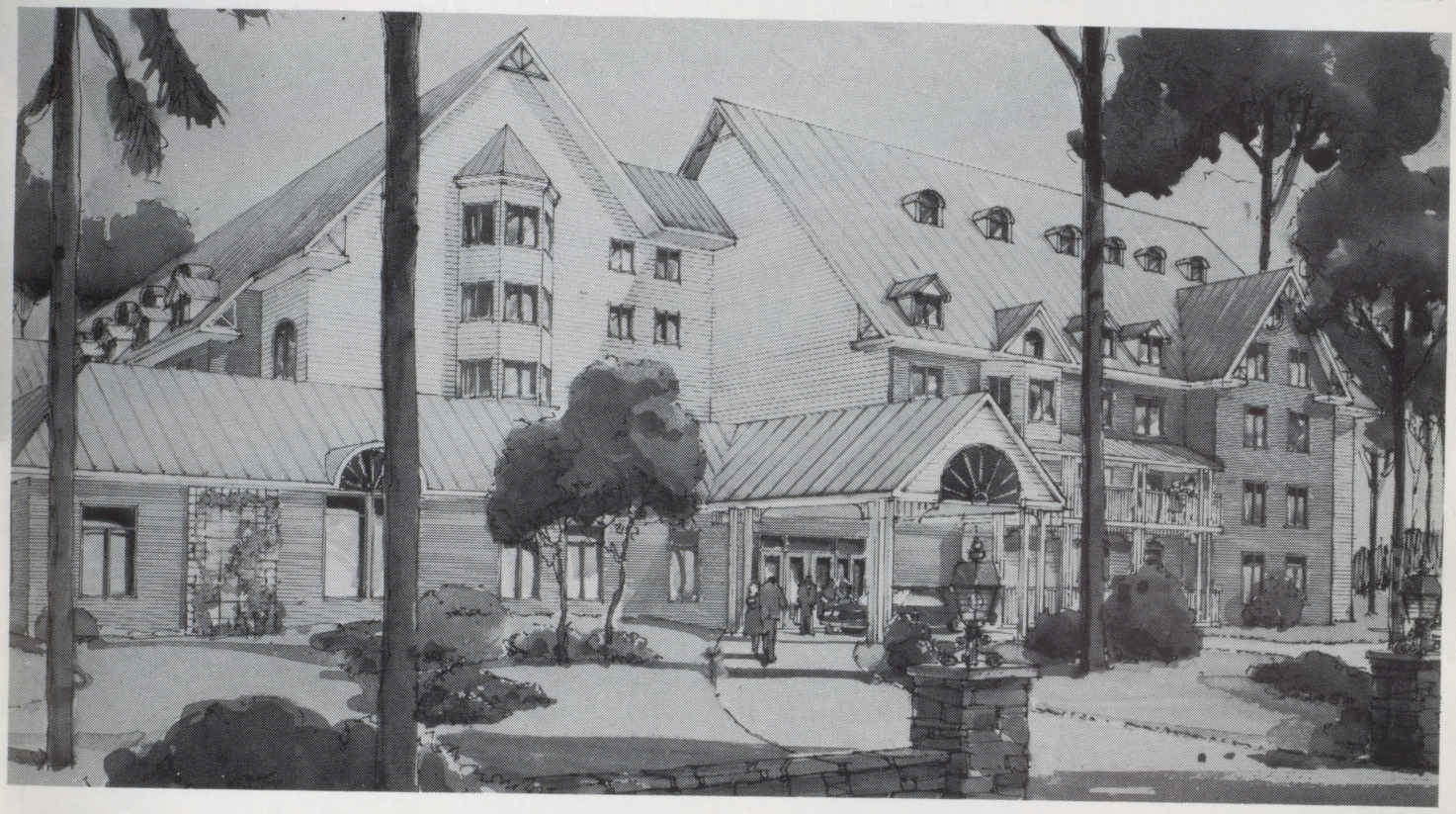

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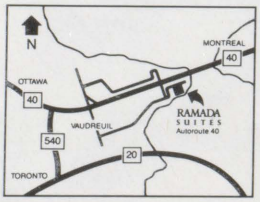

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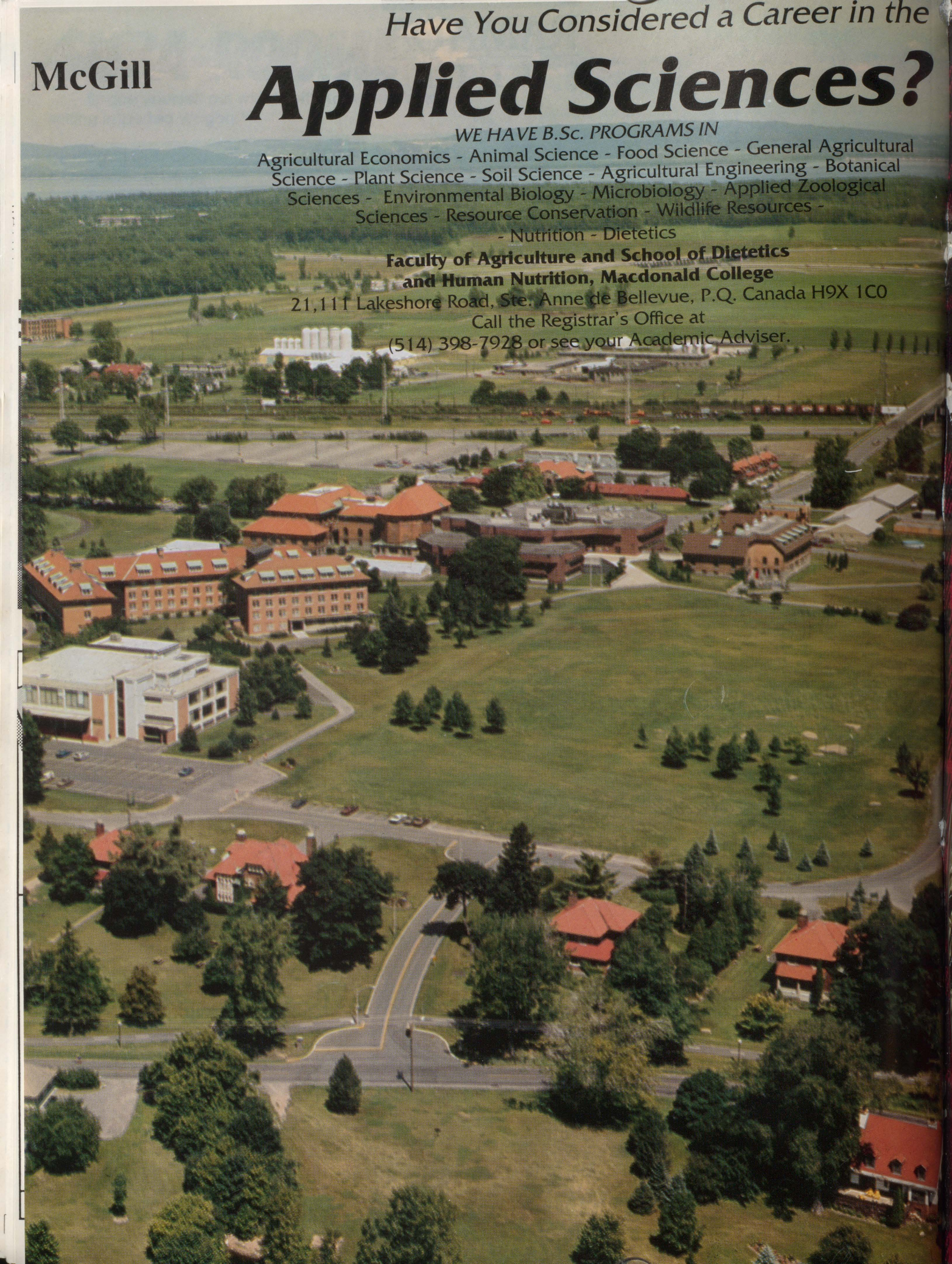
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